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WHO IS INSANE?

STEPHEN SMITH

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To Frank B. Sanborn.
With Kind Regards of
Stephen Smith
Jan. 1. 1916-

WHO IS INSANE?

WHO IS INSANE?

BY

STEPHEN SMITH, A.M., M.D., LL.D.

COMMISSIONER IN LUNACY OF THE STATE OF NEW YORK
1882 - 1888

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To the Memory of

William Pryor Letchworth

FOREWORD

IN the year 1882 I was appointed the *State Commissioner in Lunacy* of New York by Gov. Alonzo B. Cornell. On assuming the duties of the office the Governor informed me there was a popular and growing belief that many inmates of the Asylums for the Insane were sane but have never had an opportunity to relate their grievances except to officers who gave little or no credence to the patients' statements. Therefore, he advised me to keep constantly in mind when visiting an Asylum the question, *"Who is Insane?"* In carrying out his instructions I became quite obsessed with these three words and hence the title of this Book.

The insane of the State of New York, in custody, were at that time about 12,000 in number and were confined in State Asylums, in County Asylums, in Poor Houses and in private institutions. They were found in every condition hitherto known in the history of this unfortunate class from that of the pauper of the County Alms House, in filthy cells and stalls, shackled hands and feet, and fed like swine, to the kindly care, good food, clean, sanitary dormitories and freedom from cruel forms of restraint, of those in the palatial State Asylums.

The most important reforms effected by my service were: 1. The introduction of the Training School for Attendants; 2. The creation of a State Commission in Lunacy; 3. The removal of the insane from County to State care. The Training School raised the grade of qualification of attendants and has become a permanent feature of State institutions for the insane. The Commission in Lunacy has so reorganized the service of the former State Institutions for the Insane as to change them from *Custodial* "Asylums" to *Curative* "State Hospitals." The "State Care Act" permanently removed the insane from the beastly quarters and care of the "Poor-Houses" to the humane treatment of the State.

These three reforms have raised the standard of care and treatment of the insane in the State of New York to the highest grade yet attained. Nor is this reform limited to the "State Hospitals" of this State, but fortunately, their example is being copied so widely as to give the assurance that the time is not distant when the institutions for the insane in this country will take the first rank.

This Book is a commentary on my experiences as an official visitor of the Institutions for the Insane and the Charities and Reformatories of the State. Its intent and purpose are to illustrate with as few technicalities as possible the illusive nature of insanity, its origin in the

derangement of the functions of the brain-cells, the extreme impressibility of these cells and our power to increase or repress their activities. In these facts, which modern science has developed, are found the scientific principles on which the prevention of insanity, and its successful treatment, must be based. The same principles are shown to be applicable to the education of the mentally defective classes and to the reform of criminals.

This Book should prove helpful in the prevention of insanity at the different periods of life and hopeful of the time when biology shall be able to completely unfold the mysterious mechanism of the brain, physiology to explain the function of every nerve centre and psychology to interpret the significance of all mental phenomena.

THE AUTHOR.

January, 1916.

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PART ONE

Who Is Insane and What Is Insanity?

I

Who Is Insane?

I

Who Is Insane?

WHO is insane? No one, or every one, according to the persons questioned. No one in an asylum will admit that he or she is insane. Each in turn would resent such an insinuation. Certainly no one out of an asylum will assent to the charge of being insane. And yet the sane and insane readily recognize the insanity of others. An intelligent old lady, once the head of a Ladies' Seminary, wished to be discharged from an asylum alleging that all the patients in the Hall believed her sane. Seven women were privately asked their opinion as to her sanity, and all declared she was very insane, while asserting their own sanity. When informed of the result of the test, the old lady accurately described the special peculiarities of each of her accusers, but could not realize her own condition.

No One or Every One

So it is in every community. The private gos-

sip is much concerned about those who are called "strange," "peculiar," "deranged," "unbalanced," "light-headed," "a-little-off," "out-of gear," "wrong-in-the-upper-story," "cranks." Few, if any, escape for a life-time one or the other of these epithets. Without, as within the asylum, no one recognizes his or her own mental deviations, but readily detects the aberrations of others. It is an apt illustration of the old precept, "Let me pull out the mote out of thine eye, —and, behold, a beam is in thine own eye."

Advanced Thinkers Classed as Insane

N the world at large, every advanced thinker, enthusiastic reformer and popular teacher is almost certain to be classed with the insane. The friends of the Master said: "He is beside himself"; St. Paul was declared "mad" by the highest judicial tribunal; Luther was charged with hallucinations; Napoleon had his guiding star; Byron was "erratic"; Wilberforce and Garrison were "fanatics." "Genius is a neurosis," says a French authority, and Dryden wrote, "Great wits are sure to madness near allied."

"The popular judgment of the insane is largely based on unjust prejudices," said an eminent alienist. It is true, whatever may be the explanation, that we have an instinctive dread of the insane, and shrink from contact or association

with them. The sudden discovery that our companion, with whom we may have had an agreeable and profitable conversation, has an illusion, delusion or hallucination, however harmless, gives us at once an undefinable sense of discomfort, or, perhaps, of insecurity. We wish to escape his presence. His sane and sensible opinions on all current topics weigh nothing in our estimation. Failing in one particular mental function, we cannot believe that his judgment is reliable on any subject.

Popular Prejudice Against the Insane

WHILE this feeling on our part is apparently instinctive because so universal, yet with many it has been intensified in childhood by that terror of the neighborhood, a crazy man or woman, whom the friends persist in retaining at home, confined in a garret or other out-of-the-way place. "Run, boys, old Jerusha is coming," was the frequent signal of alarm in our boyhood days when one of our number saw the truly frightful figure of a woman, roaming in the fields, her outer dress thrown over her head, and a butcher's knife thrust under a belt about her waist. She proved to be a "terror by night" to all of the children of that vicinity during their lives, for she appeared ever after in all of their disturbed dreams.

Many have their fear and dread of the insane intensified by the occasional horrible crimes which they commit. Without reason we are disposed to accept the one act of a single person as characteristic of the reliability of ten thousand of that class.

When, however, we are brought into more familiar contact with the insane, and become interested in their special peculiarities of thought and action, a strange fascination may take the place of fear, giving rise to an intense desire to analyze and interpret their mental operations. Even "Old Jerusha" ceased to be a terror when we became more familiar with her history.

Personally, I came to be greatly interested in her visits to our home, though these visits were often made at midnight. She was very fond of my mother, and her tap on the door with the handle of her knife awakened me to a sense of security, rather than fear. Mother always cheerfully responded to her knock, invited her to come in, prepared a cup of tea, and, together, they discussed current neighborhood events. It was only when the course of their conversation brought to her thoughts her betrayer that Jerusha showed any considerable mental disturbance. At the thought of him, she would seize her knife, and, brandishing it over her head, excitedly exclaim: "If I ever

meet him I'll bathe this blade in his heart's blood!" A touch of my mother's finger upon her arm, and a deprecating glance at the bedroom of the children, brought a humble apology and an immediate return of the knife to her belt.

The Insane in Asylums

WHEN, instead of observing the life of a single insane person, our duties lead us to study them isolated in a community, as they are found in asylums, a new and altogether different impression is made upon us, which not only supplants all fear or dread of contact with them, but gives every phase of their lives an interest of marvelous intensity. We seem to be among a people so like ourselves in many respects, and so unlike in others, that at first we experience a degree of mental confusion quite disturbing.

If the visitor to an asylum is an official, who is required to converse with every one who desires to speak with him, apart from officers and attendants, the impression that is made upon his mind becomes so pronounced that he cannot possibly escape the conviction that there can be no hard and fast lines drawn between large numbers of the sane and insane. He discovers that he is in a community of people quite as full of mental activities as the one he left in the out-

side world. Here he finds the same passions, emotions, conceptions and themes of conversation that occupy the people of the town. One is loitering along the hall like a man of leisure, another walks rapidly with knitted brow as if intent on business, a third is reserved or even morose, as if laboring under a disappointment, a fourth is talkative and mirthful, and laughs at every unusual event. Evidently each one has a special subject of interest to him or her alone, which occupies the thoughts to the exclusion of everything else. On this one topic the individual speaks freely and earnestly, and, whether correctly or incorrectly, certainly with entire candor.

My impression of the insane in asylums was, therefore, that they form a community not very unlike the ordinary village. There are in each the quiet, sober, thoughtful; the active, restless, excitable; the queer, peculiar, nondescript.

Every One Seemed Insane

THE mental impression which a stranger to the insane experiences, after a day spent in constant conversation with the inmates of an asylum as he meets them under varying conditions, is peculiarly confusing. For my own part I could not divest myself of the impulse to regard and treat every one whom I met in the outside world as insane. Whether walking along the public street,

or entering a passing car, or stopping at a hotel, I could not escape the conviction that I was still among the insane. Involuntarily, I endeavored to determine from what form of insanity everyone with whom I conversed was suffering.

The more rational they appeared to be, the more closely I questioned them, in the constant expectation of discovering the carefully concealed clue to their mental delinquencies. As never before, though quite unconsciously at the moment, I studied the peculiarities of each stranger and strove to detect in his or her features, dress, manner or acts, the latent evidences of an unsound mind. And it is true, I met many persons in the outside world, active in its affairs, who, on careful scrutiny, exhibited mental aberrations quite as distinct as did many of the inmates of the asylum. Especially was this true of perversions of the senses, as of seeing, hearing, smelling, tasting, touching. While in large numbers of cases the evidences of mental disturbance were readily recognized, in other cases the most careful and painstaking inquiry elicited no positive proof of a deranged mind.

BUT though I had become so inquisitive as to the insanity of others, I was altogether unprepared for the discovery that I was about to have my own sanity tested by an inmate of an

Who Is Insane, You or I?

asylum. "Who is insane, you or I?" was the startling question put to me as I walked along the Hall, pencil and paper in hand. I was intently studying the peculiarities of others to determine the special features of their mental aberrations, but it had not occurred to me that, from the viewpoint of the inmates of an asylum, I might myself be a "suspect." I was not surprised at the first part of the question, "Who is Insane?" for that was constantly uppermost in my own mind. It was the entirely unexpected application of the inquiry to myself that created momentary mental confusion.

My querist was a young lady who had been a prominent teacher in a seminary for young ladies. Her mobile features, quick movements, excited manner and rapid speech indicated a highly organized nervous system. The mincing manner of her approach, the sarcastic smile and the attitude of expectancy which she assumed, her head being poised on the tip of her finger resting on her cheek, showed that she anticipated the embarrassment which her question might create. Other patients, who heard the question, quickly gathered about us, all evidently intent on hearing my answer.

At a loss for an explanation which would not offend so sensitive an audience, I hesitated a

moment, and then replied: "Why you, of course, are insane." She slowly and thoughtfully repeated my words, and added in the same strain, "You, of course! Why, 'of course?' Do you see insanity in my features?" Taking a small mirror from a stand, she moved it before her face, saying: "Will you be so kind as to teach me how to examine a person's face and discover what may be his mental condition?" She placed herself in different attitudes, holding the mirror in different positions, and making ludricous grimances, greatly to the amusement of the by-standers. She continued: "If you will teach me your occult art, I should be delighted to be able to say to anyone I meet: 'Why, of course, you are insane.' If I become as expert as you think you are, and had your assurance, I might even say to you, 'Why, you, of course, are insane.'"

The interview was becoming decidedly personal, and the patients gathered around us were excited by the shrewd turn of her remarks, and boisterously applauded the points which she made against me. I attempted to bring the colloquy to a close, but she spoke so rapidly that I could not interrupt her, until I turned away, when she apologized for what she said I might regard as rudeness, but which she felt was the proper improvement of a rare opportunity to express her opinions.

"You altogether mistook the meaning of my reply to your question," I said, with as much composure as I could command. "I did not and could not decide as to your sanity or insanity by any peculiarity of your features, nor for anything noticeable in your personal appearance, for, in these respects, I see no difference between you and many whom I meet in the streets. It occurred to me, at the moment, that I should make no mistake in my answer if I said 'You, of course, are insane,' for this reason, the law provides that only insane persons shall be confined in asylums for the insane, while the sane are rigidly excluded. Now, as between you and me, you are legally confined in this asylum, and I am legally excluded; therefore, when you called upon me for a decision as to 'Who is insane, you or I,' I could promptly and truthfully say, 'Why you, of course, are insane.' "

"Ah, I see how you work the problem," she said. "In an asylum, insane; out of an asylum, sane; it's the same old story of the ins and outs, with this difference, that the ins are anxious to get out and the outs are anxious not to get in."

Assuming a defiant attitude, she sneeringly said: "This whole business of locking people in these prisons for life, because some fool of a doctor says they are insane, is a contemptible and transparent fraud. You admit that if you

had met me in the street, or in the cars, or in a hotel, you would have declared me sane, but happening to meet me in this asylum you promptly and audaciously pronounce me insane. On what a slender thread hangs our destiny!"

With a graceful wave of her hand and a low bow she withdrew to her room, leaving me to my reflections.

She had propounded one of the most profound questions known to science and had made a declaration of immense social significance. "Who is insane, you or I?" is a question which confronts us whenever we look into the eyes of our fellows. And, truly, on what a slender thread hangs our destiny, when we may be committed to an asylum for a lifetime because we differ in thought, word or action from another, whose mental integrity has never been gauged by any absolutely correct standard!

II.

Is There Any Sure Sign of Insanity?

II

Is There Any Sure Sign of Insanity?

A STUDENT of the famous alienist, Esquirol, inquired of him, "Is there any sure sign by which the insane can be distinguished?" He replied, "Please dine with me to-morrow at six o'clock." The student complied. Two other guests were present, one of whom was elegantly dressed and apparently highly educated, while the other was rather uncouth, noisy and extremely conceited. After dinner the pupil rose to take leave, and as he shook hands with his teacher he remarked: "The problem is very simple after all; the quiet, well dressed gentleman is certainly distinguished in some line, but the other is as certainly a lunatic and ought at once to be locked up." "You are wrong, my friend," replied Esquirol with a smile. "That quiet, well dressed man who talks so rationally has for years labored under

Apparent Insanity of Balzac

the delusion that he is God, the Father; whereas the other man, whose exuberance and self-conceit have surprised you, is M. Honoré de Balzac, the greatest French writer of the day."

The Case of Rènan

A MORE remarkable misadventure, recorded on the authority of the distinguished writer, Aurélien Scholl, befell not a student but a shining light of medical science, Legrand du Saule, one of the acknowledged authorities on mental diseases in Paris. A well-known man of letters, feeling uneasy about a daughter who showed some signs of eccentricity, was anxious to get the opinion of this specialist without arousing her suspicions. For this purpose he concluded to give a dinner to which de Saule and several other celebrities were invited. It was a feast of reason and the flow of soul was full and free. Legrand du Saule took little part in the conversation, but listened attentively and used his highly trained powers of observation.

Toward the end of the dinner he leaned toward his host and whisperēd: "You may make your mind easy about your daughter. She is suffering from nothing more serious than a trifling nervousness which will pass off. But I think it right to tell you that there is one of your guests whose mental condition is distinctly

alarming, and, I fear, hopeless." Being asked who this was, the oracle said: "That stout gentleman yonder, with the look of a canon, who is laughing so heartily." The man who was thus enjoying himself, all unconscious of the doom pronounced upon him, was Ernest Rènan.

Insane on One Subject

LORD Erskine, who as Lord High Chancellor of England, had supervision of the insane, received several letters from an inmate of an asylum, alleging false commitment. The letters were so well written that the Chancellor requested the superintendent of the asylum to bring this patient to him for his personal examination. The patient proved to be a very gentlemanly person, and in conversation on a great variety of subjects showed unusual intelligence. Turning to the superintendent, the Chancellor expressed his surprise at the detention of a gentleman whose mind was so well balanced and so free from delusions. The superintendent requested the Chancellor to ask his visitor, "Who is the King of England?" On putting this question, the conduct and attitude of the man suddenly changed, and, rising and assuming a proud air, he placed his hand over his heart, saying: "I am the King of England, and you are my Lord Chancellor."

I conversed with a man who spoke readily

and very intelligently on a variety of subjects. I could detect no defect in his views on whatever topic we discussed. Noticing that in the intervals of our conversation he looked at a tree-top and smiled, I asked him if he saw anything in the tree. "Why, certainly," he replied, "don't you see the two women in the tree, one above the other, and both smiling at us?" I confessed my inability to see them, though at his suggestion I took different positions. He ceased to converse, but in *sotto voce* declared "everybody is in the conspiracy."

The Effect of a Word

A SUPERINTENDENT requested me to examine a certain patient and inform him as to the man's sanity. I spent an hour or more in conversation with him and we discussed a great variety of subjects. He was very intelligent, humorous and inquisitive, and I could discover no sign of mental confusion or disturbance. On reporting the fact to the superintendent he suggested that while conversing with him I should incidentally say, "Telephone." On the following day, while passing through the hall in which this patient was confined, he came to me and we again entered into conversation, the topic which most interested him being current political events. In an interval I spoke the word, "Telephone," at which he became excited

and declared that I was one of the conspirators. On inquiry I learned that he never showed any signs of mental disturbance except when that word was spoken in his hearing. He had been employed in an establishment in the constant use of a telephone, then a new and novel instrument.

On visiting a county asylum one hot summer day, I found a very efficient man in charge. The patients were all in the field and he was alone. The little isolated asylum building for the insane was in excellent condition in every part and I spent some time with the attendant conversing on matters relating to inmates and the management of the almshouse, about which he was very well informed.

On finishing my inspection he invited me to his room, and on entering he locked the door and put the key in his pocket. To my inquiry as to his training for his present position, which he seemed to fill so acceptably, he replied, with marked emphasis, that God was his only instructor; that he was in immediate communication with Him and never took any advice from man or woman, but always followed His instructions. I asked if God should instruct him to punish one of the inmates would he do so without consulting the superintendent. "Certainly," he replied, and raising the cover of his desk he showed me a whip, a sharp pointed knife and a *pistol.*

Looking at my watch, I arose, expressed my surprise that it was so near train-time and moved towards the door, complimenting him meantime effusively on his devotion to his duties and his reliance on God. I was immensely relieved when he took the key from his pocket, opened the door and gave me free access to the outer world. For years this man continued to do excellent work as an attendant, and it was only when allusion was made to this one matter of his source of instruction that he showed any symptom of insanity.

THE preceding illustrations seem to prove that there is no sure sign by which the insane can readily be detected. While the grosser forms of insanity are easily diagnosed, there are vast numbers of cases that require the most careful and prolonged observation to determine the special phase of aberration. In some cases only allusion to a certain thing, subject, or person will cause the insane to reveal their illusions, delusions, or hallucinations.

No Sure Sign of Insanity

The explanation of the apparent anomaly, that there is no sure sign of insanity, is found in the following facts:—The brain being a complicated mechanism, as will be shown in a subsequent chapter, any one of the innumerable

parts may become deranged in its action. The effect of such derangement may be limited to a change in the function of that part chiefly, or it may involve a change in the action of many parts closely allied in physiological activities.

It follows, as in any mechanism, that the evidences of mental derangement will be more or less obscure or pronounced according to the functional relations of the part in which the disturbance began. We may derange the striking apparatus of a clock without affecting it as a correct time-piece; but if we change the action of the pendulum, we can no longer rely upon the clock as a measurer of time. So, in the action of the brain (though in a much larger sense owing to the enormous number and intricate connection of its parts), the speaking of a certain word may be the only method of eliciting the derangement. The entire mental operations may be deranged by the entrance of a poison into the blood, which would affect large sections of the brain.

III

The Diagnosis of Insanity at Sight

III

The Diagnosis of Insanity at Sight

A REMARKABLE exception to the preceding proofs of the difficulty of diagnosis of insanity occurred in my personal experience and is worthy of record in this connection. That an insane person may be recognized at sight by an expert was demonstrated in the famous trial of William Freeman, the murderer.

A Dramatic Episode

I happened to be a witness of the incident, which was highly dramatic in all of its details. In an instant and without warning the large gathering of excited spectators, all intent on the question at issue, the insanity of the prisoner, found the issue shifted to itself by the demand of the prosecution that the learned expert witness on the stand should point out an insane person in the audience. The trial was at Auburn, New York, and it happened that I attended the court at that critical period.

"What! Do you affirm that you can diagnose insanity at sight?"

"I do," was the calm, dignified, but emphatic response.

THIS question was put by John Van Buren, Esq., at that time Attorney-General of the State of New York, and was answered by Dr. Amariah Brigham, Superintendent of the Utica Asylum for the Insane. The incident was remarkable for the intense popular interest in the results of the trial, the scientific questions involved, and the eminence of the now historical personages engaged in its management. This occasion was the trial of William Freeman, a negro, for the murder of the Van Ness family in the vicinity of Auburn, Cayuga county, New York, on the night of the 12th of March, 1846. The frightful tragedy was thus described in a local paper:

The Freeman Case

"William Freeman, a negro, a native of Auburn, who has recently been discharged after five years' confinement in the States Prison, having provided himself with weapons, proceeded to the house of John G. Van Ness, in the suburbs of Auburn, and there, without notice and without any apparent motive, slew Mr. Van Ness, a wealthy and worthy citizen, Mrs. Van Ness, her sleeping infant, and her aged mother, and wounded mortally, it is believed, the laboring man who dwelt with them, leaving only the

maid servant of the family, and she had only been spared because he had been disabled in the affray."

The murderer was arrested and confessed the perpetration of the crime, but showed no signs of regret; on the contrary, he freely described the incidents of the murder, and laughed continually during the recital. The incensed and excited public saw in his strange acts and unaccountable conduct, together with the entire absence of motive for the crime, grounds for the belief that he might escape punishment on the plea of some wily lawyer that the prisoner was insane. Crowds of excited people gathered about the jail determined to seize the prisoner and lynch him, but the sheriff adopted such precautions that no serious effort was made at a rescue. But popular feeling now took another form. It was determined to resist to the last any effort that might be made to secure the escape of the criminal under cover of alleged insanity. The greatest vigilance was maintained over every movement in the legal proceedings in order to prevent that issue. What made the apprehension that this question would be raised more decisive was the circumstance that only a month previously a murderer had escaped the lawful punishment of his crime through the plea of insanity interposed by his counsel, William H. Seward, Esq. There was, indeed, a

wide-spread belief that the criminal in the Van Ness tragedy was emboldened to perpetrate murder owing to the results of the recent trial. The excitement of the public was in some measure allayed by the remark of a prominent Judge that the prisoner would not escape conviction by any plea or defense of Seward.

BUT the Judge and the people were destined to be disappointed. Freeman was indicted and in due time brought into court for arraignment. The court-house was densely packed by an eager and excited crowd of citizens. The District Attorney arraigned the prisoner on the several counts of the indictment. Freeman's appearance was said to be that of a man "deaf, stupid, unable to talk connectedly or to any sensible purpose; had an idiotic laugh upon his face, and, apparently, was ignorant of, or indifferent to, his own situation." To the question, "Have you any counsel?" the prisoner replied, "I do not know." To the further question, "Who are your counsel?" he replied, "I don't know." These questions led up to the tragic feature of these proceedings. The Judge asked the usual question, "Will any one defend this man?" A death-like hush fell upon the audience. The report states that "The spectators looked at each other in breathless silence, bro-

Freeman's Condition

ken only when Mr. Seward, pale with emotion, but with inflexible determination in every feature, arose and said, "May it please the Court, I shall remain counsel for the prisoner until his death." It is added, "A murmur of indignation ran around the court-room at this continued defiance, as it was regarded, both of public opinion and of public justice."

At that period the anti-slavery agitation had reached a degree of development which converted the prejudices of the great mass of the people against the negro into an uncontrollable frenzy when he committed crimes. Scarcely less bitter was the public feeling against the few anti-slavery sympathizers in the community who, though equally shocked by the murder, desired to have a fair trial given the criminal. But nothing could have occurred which tended to arouse greater popular indignation than the announcement that the negro was to have as his legal adviser and protector one who, under the specious plea of insanity, had recently secured the disagreement of the jury in a trial for murder. And it is certain that no man of less distinction than Mr. Seward would or could have had the courage to assume, voluntarily, the position of counsel for this self-confessed negro murderer. One prominent local attorney who was impressed with the conviction that the prisoner was insane or an imbecile, and that he

might not receive fair treatment owing to the popular excitement, and had volunteered to defend him, publicly withdrew from the case rather than face the storm of indignation which awaited the counsel of the murderer. It was the abandonment of the case by this lawyer that led Mr. Seward, in volunteering to defend Freeman, to add, "I shall remain counsel for the prisoner until his death."

Mr. Seward's Position

MR. SEWARD occupied at that time a unique position in the political history of the State of New York. He had already been Governor of the State for two terms, and took rank among those advanced leaders of the Whig party who entertained and occasionally gave utterance to strong anti-slavery sentiments. No man of less note and courage would have dared to appear as counsel for the prisoner, and even he was denounced by the press and pulpit in unmeasured terms, and the most dishonorable motives were attributed to him in explanation of his conduct. Even the clergyman who conducted the funeral services of the murdered family had inflamed the public mind by appealing to instincts of self-preservation against any indulgence of moderation or forbearance toward "adroit counsel" in the efforts to lower the standard of accountability for crime by the plea of insanity.

It appears from the record that Mr. Seward did not undertake the defense of Freeman from mere sentiment, but that he thoroughly studied the case and became convinced that the prisoner was hopelessly demented. He personally visited him in his cell and endeavored to converse with him, but found him hardly more than idiotic. He invited friends to visit the prisoner and study the case; their reports confirmed his experience. He also engaged the services of expert physicians, all of whom agreed that Freeman was suffering from dementia due to a severe injury to the head received several years before, and his delusion was that he had been wrongfully confined in prison, and that he would seek revenge on some one.

The District Attorney of Cayuga county, impressed with the gravity of the situation and the favorable character which Mr. Seward might give to the defense, summoned to his aid the Attorney-General of the State, John Van Buren, Esq., son of ex-President Martin Van Buren, then at the height of his professional and political fame. He was regarded as an excellent antagonist of Mr. Seward. The appearance of these famous men in court gave additional interest to the trial. The court-room was constantly crowded and the town was filled with strangers interested in the case.

The theory of the defense was insanity, and

among the eminent alienists summoned as expert witnesses was Dr. Amariah Brigham. He was Superintendent of the Asylum for the Insane at Utica, and was regarded as the highest authority in his specialty in this country. He had previously seen the prisoner and fully sustained the theory of insanity. At the time of the trial he had desired to see the prisoner again and make a more thorough study of the case. In order to weaken, as far as possible, Doctor Brigham's testimony, the prosecution refused to allow him to examine the prisoner during the trial. He was compelled, therefore, to form his opinion of the mental condition of Freeman by daily observations of his appearance and actions in court.

The Testimony of Dr. Bingham

THE testimony of Dr. Brigham was regarded as the pivot on which the case would ultimately turn, and public excitement was at its height when he was called to the witness stand. I happened to be in Auburn on the day Doctor Brigham was examined and witnessed the remarkable scene which transpired, and which has never, to my knowledge, been fully described.

Doctor Brigham was a man whose personality would attract attention in any audience. He was very tall and spare, and his smoothly

shaven face was as impassive and expressionless as marble. His eyes were piercing when fixed on an object, but expressive of humor when he was subjected to examination. The general impression which he made upon the spectators was that of a man of great intellectual superiority, but who had the most perfect self-control. On his direct examination he described in great detail the signs and symptoms of dementia, and gave his reasons for believing that this was the special form of insanity with which the prisoner was afflicted. He admitted that his opinion was based on his study and observation of the prisoner while in court. In reply to questions as to his ability to diagnose insanity at sight, he expressed the most positive opinion that he could do so ordinarily, and had often proved his power to detect the absence of insanity when insanity was feigned, by observation and without asking a question.

On the cross-examination, Mr. Van Buren resorted to every known strategem and quibble to destroy the effect of these firmly expressed opinions. He ranged through the fields of literature, science, history, and philosophy to find some point of attack where Doctor Brigham might be vulnerable, but in vain, for he was met not only with prompt answers, but frequently the learned counsel was placed at a disadvantage by the incisive repartee of the witness.

The character of much of this part of the testimony will appear from quotations from the record.

"Is suicide contagious?" asked the counsel.

"I think it was in the French army until Napoleon put a stop to it by executing two or three suspects," the witness replied. It is stated that a titter ran through the audience and the Attorney-General renewed the charge.

"Is hysterics contagious?" he asked.

"It seems to be catching," the Doctor placidly said.

"Suppose, Doctor," said the counsel, with a sneer, "that I should go out and steal a hundred dollars and then come in again and sit down here, would you swear I was insane?"

"I think I should," calmly replied the Doctor.

At length the examination took a more practical form when the counsel inquired as to the method pursued by the witness in diagnosing insanity at sight. The witness replied that he relied on the features of the patient, which he always attentively studied.

"Which feature do you rely on in your diagnosis?" queried the counsel.

"I rely on no one feature, but study them as a group," was the answer.

"Do your rely on the chin?" he was asked. "No," he said. "Do you rely on the nose?" was the next question. "No," he said. "Do you rely

on the ear?" the counsel persisted. "No," said the witness. "Do you rely on the cheek?" was the next tantalizing question. "No," was the answer. "Do you rely on the mouth?" the counsel continued. "Very much," said the Doctor. "Do you rely on the eyes?" was the next question. "Still more than on the mouth," the witness answered. "If, then, this prisoner were concealed all but his mouth or his eyes, you affirm that you could decide accurately whether or not he is insane?" queried Mr. Van Buren. "No, I do not state that; I must see all the features at once," the witness urged. For a considerable time the astute Attorney-General dwelt on the features of different persons, endeavoring by his wit and sarcasm to throw the utmost ridicule upon the witness's method of detecting insanity at sight. With passive countenance and in the most quiet, self-possessed manner the witness answered all the questions, exhibiting not the slightest irritation at the gibes and jeers of the wily and witty counsel as he held up to ridicule before the jury Doctor Brigham's new method of diagnosing insanity.

The interest of the court, jury, counsel, and the immense audience had gradually increased as the examination progressed, until the nervous tension of the entire mass of people had become painful and the suppressed excitement

was intense. The crisis was reached when the Attorney-General exclaimed, with startling vehemence and emphasis on every word, "What! Do you affirm that you can diagnose insanity at sight?" "I do," was the calm, dignified, but emphatic response. Apparently satisfied that the climax in the examination had been reached, and turning towards the jury and spectators, the Attorney-General demanded in the most contemptuous manner and tone, "Point out to the court and jury an insane person in the audience." This challenge was the critical test of the competency of the witness on the credibility of whose testimony the defense placed its chief reliance. Doctor Brigham accepted the challenge without a moment's hesitation, and with an air of reserved confidence which impressed every one with belief, or perhaps fear, that he would prove equal to the emergency.

Dr. Brigham Put to the Test

IT is impossible to describe the scene which followed. A breathless silence fell upon the court-room. The venerable Judge raised his glasses to his forehead and surveyed the excited mass of people about to undergo the ordeal of an examination as to their sanity. The large number of legal gentlemen within the bar arose to their feet and gazed at the crowded hall and passageways with in-

tense curiosity. The spectators were simply awe-stricken when they realized that the crucial test was to be applied to them, and, being one of the number, I still feel the thrill of horror I experienced.

Dr. Brigham arose from his chair very deliberately and stood for a moment surveying the people, as if to determine where to begin his scrutiny. He was white and emotionless as a marble statue. Turning slowly to the left or first tier of seats he began a deliberate survey of the spectators, scanning the features of each one with the apparent confidence that he could detect the faintest traces of insanity. As his keen, searching eyes glanced from tier to tier of seats the suspense was simply unendurable. He had reached the middle aisle and yet no one had been pointed out as insane. Five hundred faces had been scrutinized and no group of individual features had responded to the test. That portion of the audience at least breathed more freely. An incredulous smile began to play about the mouth and light up the mobile features of the Attorney-General, while a greater earnestness of manner and intensity of scrutiny were apparent in the witness. Deep furrows appeared on his pallid face, and his eyes assumed a piercing brilliancy which made every one shrink on whom his gaze was momentarily fixed. I felt

myself transfixed when I realized that my face was focalized on his vision, and I experienced a sense of the greatest relief when I saw that I had safely passed the trying ordeal. A sigh of relief followed along the rows of seats as the glance of the great expert swept over them. The area of faces still to be examined was now rapidly diminishing, and but one-fourth of the audience remained to be scanned. It was apparent that thus far either there was no insane person in the crowd, or if there was, the witness had failed to detect such person, and hence had failed to answer the practical test to which he had been challenged by the prosecution and which he had accepted without protest.

Insanity Recognized at Sight

SUDDENLY the wandering eyes of the expert became fixed; his features relaxed and assumed their customary impassiveness, and it was evident that he had discovered the object of his search. Stretching out his long arm and pointing with his finger toward a person on one of the rear tiers of seats, he quietly said, "There is an insane man." At the instant a man, as if struck with a bullet, sprang from his seat and, wildly gesticulating and shouting a volley of oaths against any one who would call him insane, rushed down the aisle toward the bar.

The Judge rose hastily from his chair as if about to escape, the lawyers were panic-stricken and mingled with the crowd; but Doctor Brigham stood perfectly self-possessed, while the officers struggled with the lunatic in their efforts to remove him from the court-room.

The whole scene was intensely dramatic and the termination was a surprising ovation for the triumphant actor, Doctor Brigham. The prosecution was completely nonplussed, and the witness was allowed to retire without further tests of his ability as an authority in the diagnosis of insanity at sight. The man who was pointed out as insane proved to be a harmless lunatic who had strayed into court from a neighboring livery stable. To break the force of Doctor Brigham's successful test, however, the prosecution circulated the report that Mr. Seward, in anticipation of this test being made, had caused the insane man to be placed in that seat, and that Doctor Brigham had previously seen him. This absurd story only heightened the effect of the favorable impression which Doctor Brigham's successful answer of the challenge of the Attorney-General made upon the court, jury, and the people.

The final issue of the case was the conviction of the criminal for murder in the first degree. Public feeling would admit of no other verdict.

He was not executed, but died in prison, demented to idiocy. An autopsy confirmed the correctness of the defense—insanity.

IV

What Is Insanity?

IV

What Is Insanity?

"PLEASE define the term insanity," said the lawyer, in an insinuating tone, to an expert witness in a recent case where the issue in court was the insanity of a deceased millionaire. The learned counsel had been very suave and courteous in his manners, had asked very simple questions, and had complimented the witness on his ready and correct answers. Suddenly his entire attitude toward the witness changed. Straightening himself to his full height and thrusting his thumbs into the arm-holes of his vest, he assumed a most aggressive appearance as he put this question, meantime casting an inquisitive glance at the jury.

An Expert Challenged

Simple and proper as the question appeared to be, it was evident from his pose and grimaces that the astute attorney knew well the endless possibilities of the field of inquiry upon which

he now entered. He had traversed it many times before with learned experts and had amused court and jury with the tangled mesh which he wove about his victims in the form of quotations from eminent authorities entirely contradictory of the answers of the witness. He appeared to have no thought or concern about the definition which might be given. And the sequel proved that he really did not care what reply he elicited. Like the spider in the center of his web, he could attack his game on whatever line he might alight. All the advantage which he asked was that the witness *attempt* a definition. When this was obtained, the learned casuist immediately proceeded to confront the witness with a variety of definitions of authorities quite unlike that which he had given. The result of these quibblings of the attorney proved disastrous to the reputation of the alienist witness for expert knowledge of the nature of insanity.

The reckless and often unscientific testimony of so-called experts in cases where the plea of insanity is set up, especially in the trial of criminals, has in these latter days necessarily but unfortunately discredited such evidence in the opinion of legal authorities and the courts.

Taylor, in his work "On Evidence," says: "Perhaps the testimony which least deserves credit with a jury is that of skilled witnesses;

these gentlemen are usually required to speak, not to facts but to opinions; and when this is the case, it is often quite surprising to see with what facility and to what extent their views can be made to correspond with the wishes or the interests of the parties who call them. They do not, indeed, wilfully misrepresent what they think; but their judgments become so warped by regarding the subject in one point of view, that, even when conscientiously disposed, they are incapable of expressing a candid opinion."

Expert Evidence Under Reproach

JUDGE PECKHAM, of the New York Court of Appeals, said: "Expert evidence, so-called, or, in other words, evidence of the mere opinion of witnesses, has been used to such an extent that the evidence given by them has come to be looked upon with great suspicion by both courts and juries, and the fact has become very plain that in any case where opinion evidence is admissible, the particular kind of an opinion desired by any party to an investigation can be readily procured by paying the market price therefor."

In a recent judicial opinion the court declared that it had more confidence in the testimony of an ordinary observer as to the insanity of a person with whom the witness was acquainted than

in that of the alienist most expert in a knowledge of the technicalities of the so-called science of insanity.

Undoubtedly, the failure of expert testimony to enlighten the court as to the existence or nonexistence of insanity in a given case is largely due to the fact that our knowledge of the mechanism of the brain and its functions is so imperfect. The result of this ignorance of the machinery on which every mental and physical act of the individual depends is an incredible amount of theorizing, having no reliable basis other than the observation of mere symptoms which are so variable in different persons as to admit of a great variety of interpretations.

This has led naturally to the multiplication of new terms until the modern student of insanity is confused and perplexed by definitions beyond his capacity of comprehension and even memorizing. It is not surprising that under such conditions the courts are inclined to attach little or no importance to the testimony of alienist experts, and that they are subjected to unsparing criticism and even ridicule.

The fault also lies in our loose and unregulated system of selecting experts. While each party in a suit is at liberty to select experts, the grade of their qualifications will be measured by other considerations than learning, skill and experience.

The failure of alienist-experts to define insanity, or fix any definite value to the term, is very suggestive. Is not the public justified in doubting whether the commitment of persons as insane is always scientifically correct, when even our highest authorities are unable to define the term? Incredible, is it not, that at this period of advance in the medical sciences, when precision in details is so exact, that a definition of insanity cannot be formulated of universal acceptance? Does not this fact authorize the conclusion that insanity, as at present taught, has not a scientific basis? Are not authorities still seeking a solution of the phenomena of the mind in the hazy realm of pure metaphysics, rather than in an accurate knowledge of the structure and functions of the brain, the center and source of all mental activities?

Insanity Undefinable

IN view of the unsettled opinions of alienists in regard to the definition of insanity, it has been proposed by a high authority that an expert witness should decline to attempt to define the term. And this seems to be, at present, the true position to take in courts of law. Admittedly the term has no precise clinical nor practical significance among physicians. Its original meaning is "not-sound," "not-in-health," a term applicable to any sick person,

but explains nothing, and hence has no technical value. Though the word "insanity" has been limited to disturbance of the mind, or, more correctly, to the morbid conditions of the brain, it has no more importance to the modern student than have the old terms "lung disease" and "liver disease." It defines nothing and cannot be defined; it can only be explained, like other ancient scientific terms which, in the development of the sciences, have entirely lost their former or original value.

Do not these facts suggest that the terms "insanity," "lunacy," "lunatic," "mental disease," and allied words, are based on false premises and are now really obsolete? Should they not, therefore, be abolished and an entirely new nomenclature be substituted in harmony with the present advanced state of our knowledge of the anatomy, physiology and pathology of the brain?

A New Term Needed

THESE terms are also very disturbing to the insane and excite the same resentment when applied to them as when applied to the sane. They take pleasantly to the terms, "nervousness," "nervous prostration," and especially to the new and popular word "neurasthenia," which is believed to be a disease of the wealthy. The public also attach a meaning to the word "insanity" altogether out of propor-

tion to its significance even when properly employed. "Once insane always insane," is a superstition so deeply and firmly fixed in the popular mind that the mere fact of having been adjudged insane is utterly destructive of the future character, not only of the individual himself or herself, but of their children and children's children to the remotest generations.

What is insanity? has been the unanswered question of the ages. The ancients referred it to the mysteries of demonianism, and sought many and various methods of exorcising the evil spirit. Harsh and cruel measures were resorted to with the result that the victim of insanity became an outcast for life.

The moderns have sought an answer in the realm of metaphysics, and have mistaken the shadow for the substance, the symptom for the disease. Consequently, treatment has been empirical and without scientific precision. Ministering to the vagaries of that unknown quantity, the mind, has effected few recoveries.

The result has been most disastrous to the insane, for custody and not cure of the insane has long been the chief concern of both physicians and managers of asylums. This is seen in the rapidly increasing number of citizens, for the most part able-bodied, living in idleness in palatial structures built and maintained at enormous cost, by the people. If the present rate of in-

crease of the insane in public care continues, and no more successful methods of treatment are discovered, the burden upon the public for their custody and support will ere long prove a crushing weight.

The failure of alienists to formulate an acceptable definition of insanity for the profession and for the courts, suggests that, after all these years of progress, Shakespeare, with marvelous intuition, included and concluded the whole matter in two lines:

"To define true madness,
What is it but to be nothing else but mad?"

But there is, in these latter days, a more hopeful outlook for the insane. Rational methods of research are supplanting those of the past. Instead of merely observing a few ill-defined symptoms and attributing them to some disturbance of the brain not explained, hence not understood, thus reaching a vague and indefinite conclusion, skilled and expert anatomists and physiologists, inspired by the scientific spirit of the age, are gradually unveiling the mysteries of the nervous system, which has hitherto remained a sealed book. These constructive students are thus laying the foundations of a true science of psychology in the immutable facts of the structure and functions of

the ultimate elements of the brain, the center and source of all mental activities.

Though the mechanism to be analyzed and synthesized is constituted of the most subtile and elusive elements of the body, and their arrangement for the co-ordination of function is the most complex mechanism known to science, such progress has been made in determining the nature of these units of the nervous system that it is now possible to understand the architecture of the brain and to correctly interpret its operations.

V

How We Become Insane

V

How We Become Insane

"HOW did you become insane?" I asked an Irishman who was amusing a group of inmates of an asylum. Touching his forehead with his finger he said, with a grimace, "We are all built that way." In those six words he embodied all of the knowledge that science has discovered in regard to insanity in the centuries past. That short and crisp answer was a more luminous statement of the essential fact of insanity than is contained in all the books on that, and the kindred subject of psychology, which cumber the shelves of our public libraries. The most famous cell-physiologist required a volume to elaborate the same answer.

We are All Built that Way

Both the man adjudged insane and doomed to the helpless and hopeless life of an asylum, and the learned medical philosopher, expressed

the same truths, viz., that in the constitution of every human brain there are conditions tending powerfully to induce mental states known as insanity. The former stated this truth in direct, concrete form, while the latter answered in scientific terms with exact formulas and abundant technicalities which only the most learned could read understandingly.

The Marvelous Brain

THE story of the brain, as scientists have gradually unfolded its intimate structure and architectural peculiarities, is of marvelous interest. It is no longer to be regarded and treated as a pulpy, homogeneous mass of unorganized matter, but as the most highly vitalized and specialized organ of the body. Though our knowledge of its ultimate structure is limited, it is now possible to explain in a familiar way the anatomical elements of the brain,—their structure, relations and functions,—and in that explanation we discover the peculiar architectural features of the entire nervous system, and how pertinent was the answer of the Irishman to the question as to how he became insane, "We are all built that way."

Anatomy teaches that the ultimate organized element of every tissue of the body—bone, muscle, nerve, skin, hair, nails—is a cell. The vast importance of the cell in the structure and

functions of the animal economy may be learned from the following opinions of eminent physiologists:

"The cell is a unified organism, a self-contained living being."

"The sole active principle in every vital function."

"The medium of sensation, will, and even thought, the highest of psychic functions."

"The cell is not only like—it actually is— an engine, machine, or mechanism, but it is also a living mechanism."

"Our own body is a very elaborate social system of countless microscopic organisms; a colony or commonwealth made up of innumerable independent units."

The Brain a Cell Structure

ERNEST Haeckel, the German scientist, says, "We have now ascertained in the clearest, most indisputable manner, that all which we term the 'soul' is in a scientific sense nothing more than the total effect or function of the 'soul cells' of the numerous neurones in the brain." What has hitherto been known in the anatomy of the brain as a cell, nerve, branch (dendrite), commissure, associate fiber, has been found to be a single anatomical unit, having as its base or origin the cell proper. This cell, with its projections or prolongations, is now described as a single organ under the name, "Neurone."

The following histological facts in regard to the nerve-cell are essential to an understanding of the anatomy and physiology of the nervous system.

The cell has its origin in fœtal life and at birth is in a rudimentary state, but is endowed with a capacity of large development for the performance of its special function. It is estimated that there are between one and two thousand million cells in the brain alone. The physical constitution of the cell consists of two distinct portions, viz., the *nucleus,* and a mass of protoplasmic matter which incloses the nucleus—the *cytoplasm.* The intimate structure of these bodies has not been accurately determined, nor have their physiological relations been completely established, though great progress has been made latterly to that end by the science of Biology and Physiology.

This protoplasmic matter is so extremely sensitive that the passing of a cloud over the sun will effect changes in it which can be detected by instruments made for that purpose. Cells vary in size from 1/250 to 1/3500 of an inch in diameter and may or may not be surrounded by a capsule.

The anatomist teaches that the brain-cells are grouped into centers according to their particular functions. We have long been familiar with the so-called special senses, which consist of

collections of nerve cells and are known as nerve-centers with special functions, viz., seeing, hearing, smelling, tasting, feeling. These centers are designed to bring the individual into conscious relations with five distinct objective features of the external world in which he lives, moves and has his being.

The Brain Coordinates Sense-Impressions

IT IS probable that comparatively few of these centers have as yet been accurately determined, but enough is known to prove that every function, every act, and possibly every thought has its origin in special cells in the center of the cerebro-spinal axis. For the coordination of the operations of these innumerable centers, the interior of the brain is a mass of connective nerve fibers, through which the intimate relations of the nerve-centers are maintained, thus securing the most perfect harmony in the functions of all the organs of the body. These fibers are "commissural," connecting the two hemispheres; "projection," which project "upon the cortex of the brain the results of sensory stimuli upon the body;" and "association," which "connect different convolutions in the same hemisphere."

It is stated that "Were it not for the existence of these fibers, perception, memory, and

thoughts would be impossible." Our perception of a pear is incomplete until "we have fused into one mental whole the sensations from tasting, smelling, seeing, touching and hearing the fruit fall from the tree."

Another important anatomical feature of the nerve-centers is their arrangement. First, there are the centers of the special senses through which the individual communicates with the external world. This group is sometimes called the "lower brain." The functions of these centers are to receive the impressions and transmit them to another higher series of centers, called the "mid-brain." The function of the latter centers is to take cognizance of the special character of each impression, and transmit it to the proper center in a still higher grade. This last is called the "higher-brain," which it is both in location, being in the frontal part of the cerebrum, and in function, being devoted to ideation, or thinking.

Without going farther into what would become tedious anatomical details, let us consider what the physiologist teaches in regard to the nerve-cells, or neurones, and the nerve-centers. First, we learn that the cells are implanted at birth in a rudimentary form and undergo an evolution from the cell of the lowest of animal life to the complex cell of the human brain. Though at birth the cell has been perfected, so

far as regards its structural adaptation to its special future function, yet it will remain in an inert state and undergo no further change or development until excited to activity by its special stimulant. For example, if a person is born blind, the cells of the center of sight will remain in a rudimentary state and undergo no further development until excited by their proper and only stimulus—light. The same is true of a large number of nerve-centers which are in immediate functional relation with the center of sight.

If now an operation is performed upon the eye, the light reaches the cells of the center of vision, an immediate change takes place; the *cells begin to enlarge; the blood supply is increased,* which results in active nutrition, and all of the related nerve-centers undergo similar changes as to activity and development.

The physiological facts in regard to the cells of the center of seeing are the same in the centers of all the special senses—hearing, feeling, tasting, smelling—through which the brain as a whole is stimulated to functional activity. It follows that in proportion to the integrity of the special senses is a human brain perfect, or, on the other hand, defective. It is also asserted as a physiological fact that if the apparatus by which each of the nerve-centers of the five special senses receives impressions from the exter-

nal world were destroyed at birth, the thousands of millions of nerve-cells of the brain would remain inert and undeveloped during the lifetime of the individual.

THIS fact leads the physiologist to believe that in the human brain there are large numbers of nerve-cells that remain undeveloped, because never excited to functional activity, and also that at any period of life, cells hitherto inert may receive their proper stimulus and take on functional activity. Their susceptibility may be considerably increased or diminished by nutrition. In other words, we may withhold from the nerve-cells the elements of nutrition on which their normal integrity depends, and thus diminish their power and susceptibility, or we may supply them with nutritive materials equal to the natural demands of the cells and greatly increase their force and susceptibility.

Undeveloped Brain Cells

If to the born-blind there is no world of light, and to the born-deaf there is no world of sound, may it not be a fact that around us exist other worlds than those revealed by the five special senses, which we do not recognize because the special nerve-centers for that purpose have not as yet been stimulated to activity? St. Paul hints at this opinion when he declares that cer-

tain religious truths can be discerned by those in whom the spiritual sense cell has been awakened. May not the strange mental phenomena of dreams, telepathy, hypnotism, and kindred experiences of individuals be traced to the stimulation of nerve-centers aroused to activity only under special conditions?

Summarizing these anatomical and physiological facts we may formulate the following conclusions:

1. The neurone—the nerve-cell and its branches of communication—is the unit of the nervous system; there are thousands of millions of them and their specialized functions are the control of every organ, and act, of the body—"sensation, will, and even thought."

2. The intimate texture of the cell, on which its susceptibility and capacity to perform its functions depends, is inherited, but may be modified at will by proper exercise, nutrition, and conditions of environment.

3. The germ-cell is implanted at birth, and its subsequent development depends upon its stimulation to functional activity by its appropriate stimulus; that is, if it is not stimulated it will remain inert and undeveloped, thus making it possible, by applying the appropriate stimulus, to bring into healthy activity cells long dormant.

4. When an active cell ceases to be stimulated it begins to diminish in size—atrophy—

and will become inert as regards its function, and will remain inactive until excited to activity by its special stimulant, showing that any class of cells may be reduced to an inert state and again restored to activity by withholding or supplying their appropriate stimulus.

5. Every cell has inherent in its constitution the power of selecting from the blood substances for its nutrition and stimulation, and for which it has a "selective affinity." This feature in the constitution of the cell enables us, by means of the appropriate remedies, to increase, diminish, or pervert its action.

6. In the structural arrangement of the neurones they are grouped into "centers" according to their special functions; in these centers the cells communicate with each other by means of innumerable branches—dendrites—while the centers communicate with each other through nerve-fibers known as commissures. In the grouping of these centers there is a perfectly logical and orderly series of sequences by which impressions are made, received, and responded to on the part of the centers, so as to secure the most perfect harmony in all of the acts, functions, and even thoughts, of the individual.

7. The fundamental grouping of the nerve centers was designed to bring the individual into proper relation with the external world—the source of all power—and hence we have,

first, the centers of the five special senses, seeing, hearing, smelling, tasting, and feeling; from these the impressions are conveyed to other centers closely allied in function, until they finally reach their destination in the cerebral centers, the seat of the "highest psychic function," and where the inhibitory centers control all voluntary acts.

8. Every nerve-cell has its own special function, and these functions are as numerous as the acts and even the thoughts of the individual, but each depends ultimately for its activity and development upon the stimulation which it receives from one of the five special senses, through the medium of association fibers.

From the preceding summary of anatomical and physiological facts we may conclude that every vital function, as well as every mental operation, thought, word and act has its origin and expression in one or many of these entities or units of the nervous system. Their combined physiological functions, in health, constitute the normal individuality of the person, mentally and physically.

If we now consider the extreme susceptibility of these bodies to the innumerable variety of impressions to which they are exposed, external and internal to the body, we can form some conception of how unstable their functions may be. Their own structure is constantly undergo-

ing change in the act of nutrition. Their integrity thus depends upon the absorption and removal of dead tissue and its replacement with suitable nourishment. If the dead matter is not promptly removed, or if the food of the individual is not suitable, the neuron is no longer in health and must perform its function less perfectly.

They are also extremely susceptible to, and receptive of, impressions derived from the external world. Thus they are affected by the food we eat and the fluid we drink; by diseases of every kind which afflict the body; by everything recognized by the senses.

The Cause of Derangement

IT follows that any change in the constitution or structure of the cell or neuron must be attended by a derangement of its function which would find expression in the mental acts of the individual. If a group of cells should from any cause cease to act, the mental attributes which they manifest, when acting normally, must cease. Equally, if the same cells are over-stimulated, their functional activities are correspondingly increased. Or, again, if the structural properties of the cells are changed, as by alcoholic intoxication or by any other toxic agent which finds access to the brain and for which any cells have an affinity, the

mental functional expression would be changed to the extent, and in the particular feature, that the affected bodies contribute to the mentality and personality of the individual.

Thus, if certain intoxicants are administered, the change effected in the constitution of the bodies devoted to the function of seeing are such that external objects assume new forms, technically causing an illusion of sight. The experimental physiologist can, at will, with certain toxins, change the action of groups of cells so that the individual will exhibit certain mental traits entirely foreign to his usual habit of thought and expression.

In various forms of sickness the temper and conduct of the patient undergo marked changes; he often becomes delirious, due to the changed conditions of nutrition caused by toxins in the blood or by the various forms of disease. Auto-intoxication, on which modern therapeutists place so much stress, finds its most frequent expression in the vagaries of character which the toxins generated in that great culture bed, the colon, produce on the nerve-cells.

The old-time remedy for persons of gross habits of overfeeding—blue pill at night and a seidlitz powder in the morning—has changed a sour to a sweet temper. An English clergyman who had many wealthy parishioners was accustomed, when summoned to minister to the spir-

itual wants of a certain class, to send the applicant several pills with the request that they be taken at bed-time and the promise that he would call on the following day. The famous philosopher, Dr. Samuel Johnson, declared in his vehement manner that every sick man is a rascal.

Our Ever-Varying Moods

IN health the individual exhibits ever-varying "moods of mind," owing to the constant changes in cell structures or neurons, due to nutrition and the infinite number and kind of impressions acting upon them from within and from without the body. We are not the same in every respect this year that we were last year, this month that we were last month, this evening that we were this morning. The wise Diotima said to Socrates (The Symposium of Plato): "In the same individual there is succession and not absolute unity; a man is called the same; but yet in the short interval which elapses between youth and age . . . he is undergoing a perpetual process of loss and reparation. And this is true not only of the body but also of the soul, whose habits, tempers, opinions, desires, pleasures, pains, fears, never remain the same in any one of us, but are always coming and going."

In the ultimate elements of the brain, then, science is seeking the true explanation of the mental phenomena which characterize the various phases of insanity. A learned authority has thus tersely stated the conclusions of science: "As his neurones are, so the man is."

The Nerves Classified

THE nerves, or axones of the cells, are classified, in general, according to their functions as follows: First, sensory, or those conveying impressions or sensations to the centers (afferent); second, motion, or those conveying impulses from the centers to the muscles (efferent); third, inhibitory, or those which control the functions of the two former. The practical action of these groups of neurones may be illustrated in such familiar acts as the following: We touch a pin-point with the finger in the dark; the impression or sensation is instantly conveyed to a nerve-center through the sensory, or afferent nerve, which has been continued at its terminal extremity in the skin at the tip of the finger; this sensation stimulates the cell which generates the nerve force, to send out an impulse through the motor or efferent nerve to the muscles of the arm, and the hand is as instantly withdrawn from contact with the pin. Such would be the natural or physiological ac-

tion of this group of nerves, or neurones. But if we add to the illustration the further fact that we are searching for that pin and would be liable to lose it if the finger was removed from contact with its point, there comes to our aid another nerve-center, which has been aroused to activity, which inhibits the removal of the hand by controlling the action of the muscles of the arm and compels us to maintain contact with the pin until it is secured. This simple illustration explains the differences which we daily witness in the conduct of persons under similar conditions; one is quiet and apparently indifferent whatever the cause of excitement, while another weeps and screams; in the former the inhibitory centers completely control the acts of the person, while in the latter they have lost temporary influence over the disturbed centers. With the insane the inhibitory centers exercise little or no control generally over those disturbed and hence their thoughts, words and acts betray their mental derangement.

A familiar illustration of this regulating power of a class of nerve-centers over the operations of another class is seen in the "governor" of the machine whose impelling force is steam. Without this regulator, which always preserves an equilibrium in the constantly varying force of the steam, the machine would soon be destroyed.

It follows from this review of the structure of the brain, and the physiological processes in the performance of its functions, that sanity, or a sound mind, depends upon the harmonious relations, at all times and under all conditions, of the individual vital units—the cells, thousands of millions in number— which constitute the human brain. And these cells are so sensitive and impressionable, as noted, that they are affected by the passage of a cloud over the sun.

The Wonder That Any Are Sane

THAT any kind of harmony of action in such a vast colony of independent living bodies, performing an immense variety of different functions, can be maintained, even for a moment, amid the distracting excitements and discordant influences of modern life, is amazing. That the average man should be able for a lifetime to preserve such a degree of sanity as will save him from commitment to a lunatic asylum can be explained only by a marvelous conservation of nervous energy and inhibitory power in the coordination of functions of the nerve-centres inherent in the constitution of the nerve-cells. Truly did the pious hymnist, Dr. Isaac Watts, sing:

"Strange that a harp of a thousand strings,
Should keep in tune so long."

Disturbances of the harmony of the brain cells are more frequently transient in their effect. They quickly recover their normal condition when the exciting cause is removed, or ceases to act. These functional disturbances of the action of the cells cannot be classed as any form of disease, for the structure of the cell remains unchanged. If, however, the tissue of the cell becomes changed in its intimate nature, so that the function of the cell is not restored, a condition of disease exists. In a recent decision of a United States Court of Appeals it was held that "the term 'disease' was not intended to cover and did not apply to a temporary derangement of the functions of some organ, as, for example, of the stomach."

The most familiar illustration of the nervous system is the telegraph. The resemblance is so striking that it has been alleged that the latter was modeled after the former.

The Nerve-System Telegraph

THERE is the central station communicating with the external world by its cables to foreign countries which corresponds with our brain-centres and nerves of special sense; the central station has its cells generating the electrical force as the brain-centre's nerve-cells generate the nervous force; from the electric cells proceed wires to other telegraph centres as do the nerves

from the nerve-cells to the other nerve centres; and from the terminal telegraph station the message is delivered as from the terminal ends of the nerves the messages of the brain-cells of ideation are delivered to the muscles and organs whose functions are the protection and preservation of the life of the body.

It is not difficult to understand how easily the telegraph system may become so deranged as to give wrong or imperfect messages. If the operator who receives the cable messages from the outside world—Europe, Asia, Africa, Islands of the Sea—wrongly interprets the signs through some defect in his electrical apparatus, however slight, the messages which he transmits to other centers in this country will be wrong and the final news given to the people will be false. The same is true of every telegraph centre in the entire system.

Comparing this illustration with the action of the nervous system, we note that if the cells of a nerve-centre of special sense—seeing, hearing, touching, tasting, smelling—through and by which we have some knowledge of the external world, fail to perform their functions, wrong impressions will be conveyed to other nerve-centres, and while this condition lasts the person is of unsound mind, or insane.

PART TWO

CRITICAL PERIODS OF LIFE PREDISPOSING TO INSANITY

VI

Childhood

VI

Childhood

THE pertinency of the reply, "We are all built that way," becomes more apparent when we review the normal and physiological changes which the human system undergoes at different periods of life. Childhood, the period from birth to adolescence, is full of possibilities for good and for evil to the infantile brain. The nerve-centres are peculiarly sensitive and are especially retentive of the first impressions made upon them. "Just as the twig is bent the tree's inclined" is an old and extremely useful axiom to those responsible for the care and training of children. Immature as the child seems during its first decade, impressions may be made upon the sensitive elements of its brain which will finally control the whole mental life of the individual.

Possibilities for Good or Evil

St. James's description of the power of the

tongue for mischief is an apt illustration of the final result of a single disturbed nerve centre. He declares that though the tongue is a "little member," it is "a world of iniquity;" it "defileth the whole body;" it "setteth on fire the course of nature;" it "is set on fire of hell." He compares it to a spark which kindles a forest fire.

THIS is a graphic illustration of the power of a few over-stimulated nerve-cells to extend their influence gradually until they finally dominate the entire life of the individual. If this excessive stimulation is not promptly corrected, and these few infinitesimal organisms are not brought into harmonious relations with their fellows, they may prove to have been set on fire of hell; to contain a world of iniquity; to have the power to defile the whole brain; to set on fire the whole course of nature. In the light of these facts, consider the following illustrative cases:—

Domination By a Few Cells

A bright, nervous schoolboy began to practice personal cleanliness. He was so infatuated with this impression that it gradually became the absorbing purpose of his existence. He brushed his clothes many times daily; wiped his shoes frequently with a pocket handkerchief; never crossed the street except on a clean cross-walk; always brushed the seat before sitting down.

At twenty years of age the habit had increased so that he examined his linen for specks of dirt with a magnifying glass, before he would use it; placed a chair beside his bed on retiring, on which he would stand while undressing and from which he might step into his bed, and thus not soil his feet by stepping on the floor; wore gloves constantly while at business that he might not touch the bare hand of another in shaking hands; carried a handkerchief in his hand much of the time with which he frequently brushed his coat collar. He became a successful merchant in New York, married and reared a family of children, and was greatly respected by business men and by a large circle of social and church associates. He showed no disposition to enforce his own habits of thought and action upon others, nor did his peculiar personal neatness and cleanliness attract other attention than that of admiration.

AT FIFTY, having acquired a competence, he retired from the more active duties of his business and built a very costly house in a suburban village. Relieved by his co-partners of constant attention to the details of a diversified business, and thus deprived of the hourly contact with a great variety of men, he concentrated his thoughts more and more upon his new residence,

A Mania for Cleanliness

especially as it approached completion. As room after room was finished he would daily clean it and lock the door that no one should soil the floors in his absence. On the completion of his palatial residence he spent hours in dusting and cleaning, and became very irritable when he was advised to give more attention to business and less to cleaning his house.

It required but a twelve month of isolation from business, which had formerly maintained a fair degree of harmony among the brain-cells by healthful devotion to their normal functions, for those cells, so long since set on fire of hell, to defile the whole body of cells, and set on fire the whole course of nature. He became more and more morose, and could not be diverted from his favorite employment of cleaning.

The result of this life-long aberration, beginning with the deranged function of a few nerve-cells, or neurones, was the defilement of the whole brain, commitment to an asylum, and finally death, while in the act of dusting his bed-clothes. His brain was all aflame with the fire which a spark had kindled.

A medical student, by the name of Jones, lingered after the class was dismissed, and, after some hesitation, stated that he had long been disgusted with the name Jones. I replied that it was a very convenient name, one which no person could easily forget, and hence useful for

a professional man. He expressed a strong dislike of the name and said he was determined to change it. He was a good scholar, very precise in all his acts, a perfect gentleman in his deportment, but very sensitive to criticism of every kind. In due time he graduated among the best students of the class. The Civil War began soon after his graduation and he entered the service of the Medical Department. He made an excellent record and at the close of the war took rank with the best officers in the army.

After the war he was assigned to a Military Department in the West, where he led a very quiet life. About fifteen years after his graduation I received a newspaper from him with a mark at the official records of a court, which made public the fact that on application to a court he had legally changed his name by incorporating his first name, Harvey, with the second, making it Harvey-Jones, and assuming as his first name, James. I acknowledged the receipt of the paper, and, without mentioning the fact that I had noticed the change in his name, directed my letter to Dr. Harvey Jones, as formerly. He replied promptly and called my attention to our conversation a score of years before, when he declared his intention to rid himself of the name, Jones, and directed me, if I ever addressed another letter to him, to remember his present name.

Several years elapsed, during which I occasionally heard from my student at different posts. An army officer who had been at the same station with him for a time informed me that the Doctor was generally regarded as a "crank" in many matters and on several occasions had appeared quite "luny," especially when anyone accidentally called him Jones.

Mania Over a Name

LATER in life, when he had reached the age of fifty-five, an army officer wrote me requesting my good offices in endeavoring to induce my former student to write his name in full on the Government pay-roll. I learned that latterly the Doctor had begun to drop the letter "o" from the "Jones" part of his name, and that the Secretary of the Treasury, having been informed that there was no person of that name in the army service, had refused to pay his salary any longer; that all efforts to induce him to spell his name correctly were violently resented; that he had declared that he would never write his full name under any circumstances, and would prosecute the Secretary if he persisted in refusing payment. Accordingly, I wrote a very conciliatory letter to him, being careful to direct it in accordance with his known wishes. It brought me a letter in reply in which he refused, under any circum-

stances, to comply with the Secretary's request.

The result was a suit against the Secretary to compel payment, a verdict sustaining the Secretary, and the dismissal of the surgeon from the army service. He retired to private life. Free from all duties, oppressed with the dread of impending poverty, goaded by a feeling of wrong treatment by the Secretary and army officers who had urged him to sign his name in full, his whole brain rapidly became involved and his life was soon cut short by an acute disease.

The Lesson of Such Cases

WHAT intensely interesting lessons these cases teach, and yet how differently will they be interpreted! One class of alienists, who know the brain only as a mass of homogeneous matter, will regard them as striking illustrations of the incurable nature of insanity, confirming the theory, "once insane always insane." The younger student will recognize them as stupidly neglected cases of mere functional derangement of a few nerve-cells, that might either have been restored to their normal condition by early and proper treatment, or have been reduced to a state of "innocuous desuetude" in later life.

To the public the lesson of these cases is full of significance. How rare the family of many children in which the parents fail to detect in

some one, or several of the group, a trend of thought or action not in harmony with right development of character! But no other notice is taken of it than a passing remark that the child is peculiar, and the spark that is destined to envelope the whole brain in conflagration is allowed to smoulder, with occasional marked interruptions, until in later life it flames forth in every thought and act of the individual, now a fit subject for a custodial institution, whose hospitable doors always open inwards for the reception of such disturbers of the peace and rarely open outwards for their discharge.

Not less suggestive are these cases to the teacher of youths. In his daily intercourse with his pupils he constantly meets with such instances of tendencies to vicious development of the brain, which could be changed either by removing all sources of stimulation of the nerve-centres involved, or by counteracting their nutrition through the diversion of blood to other parts of the brain. Infinite are the possibilities of developing one section of the brain at the expense of another. Bandage a child's eyes and he will depend upon the ear for knowledge of events occurring around him, and, meantime, the nerve-cells of sight will waste, while those of hearing will correspondingly increase.

And, finally, the lesson comes home to every individual. We recognize tendencies to thought

and action that we know will end, if allowed to develop without restraint, in the formation of habits which may entirely change character. These personal peculiarities, of which we are conscious, are quite under our control for long periods, and even late in life.

VII

Adolescence

VII

Adolescence

ADOLESCENCE is defined to be the period of life between puberty and the full development of the frame, extending in man from about the age of fourteen years to twenty-five, and in woman from twelve to twenty-one. It is truly the beginning of the enlarged and perfected life of the individual, or, rather, it is having life more abundantly.

Life More Abundantly

What is its real nature and import? It marks the development of a new element in the constitution of the nervous system. Even at birth nature had made provision for the perpetuation of the species by implanting in the nervous centres certain cells specifically devoted to that function. They remain dormant until adolescence, when they begin to develop and take on functional activity. Hitherto youths, both male and female, associated freely together as boon companions, but on

reaching the above ages, respectively, a new element in their conscious relations arises, a sentimental distinction, which, though "probably the most profound and most nearly universal attribute of organized beings," is so subtle in its development and expression that its origin and purport are not recognized.

THE simple truth is that a new and transforming force has appeared in the nervous constitution of both, which is destined to dominate every faculty and determine largely the mental and moral character of the adult individual. If the strong passions which have been aroused find full and healthful play, the highest type of manhood and womanhood is developed, but if they are diverted from their normal functional activities and affinities the integrity of the mental, moral and physical constitution of the individual is threatened with disaster.

Dormant Nerve-Centres Awakened

With the awakening of these long dormant nerve-centres to functional activity, the affective faculties receive a rich endowment of perception. Every sense-nerve-centre becomes more developed and active, and sights, sounds, odors, tastes and feelings, hitherto unknown, are recognized. So profound are the effects wrought by this new and impelling force, that

the personality of the individual often appears to undergo a complete change. But that change is markedly different in the two sexes.

The form of the female expands and becomes more symmetrical; her features assume a firm, inquisitive expression; she is no longer the romping, rollicking, daring leader in the sports of her playmates, but is shy, sensitive, emotional; she becomes so impressionable that a word may cause an ecstacy of joy, or excite an outburst of passionate grief. Suddenly, without preparation or premeditation, a smile, a tear, a word, a touch, transforms her boy-companion from a simple playmate to a sensuous, idealized being, whose presence hereafter will have a strange, irresistible fascination which charms every sense. Quite unconsciously she seeks by various arts to increase her personal attractions; she studies grace in attitude and manners, style in dress, precision in speech. Her entire personality has undergone such a marvelous change that her former self can scarcely be recognized.

Not less apparent, but radically different, are the influences of adolescence upon her boy-companion when he reaches the age of fourteen years. The implanted hair-bulbs of his face, dormant until adolescence, become active and soon change his features; his voice assumes a grave, commanding tone; his bones lengthen,

his muscles strengthen, his chest broadens; he moves with deliberation; he speaks like one born to command, and his attitude toward others is that of a master.

Ambition stimulates every energy to intense activity; he becomes aggressive, contentious, defiant; he is imperious, and when opposed or baffled in his efforts, resorts to extreme physical measures to accomplish his purposes. His girl-companion, by her modesty and shyness, appeals for protection to his sense of superiority, and he proudly assumes her care and makes her an idealized vassal in the realm of his affections. Adolescence has wrought in his personality a change not less striking, but entirely opposite in all of its manifestations, from that of his boyhood playmate.

The Meaning of the Changes

THE normal physiological significance of these peculiar changes of character and conduct of adolescents is efflorescence of the affective faculties, due to the awakening of their nerve-centres to functional activity. The expression of these faculties is known and described as "love." An eminent writer on metaphysics says: "The first awakening of love in true and gentle natures is a psychological moment of the utmost importance; the spiritual life has not unfrequently

started from this point." But so various are the forms of this expression that six contemporary experts of insanity give the following definitions of love, as described in current works of fiction, viz., "emotive delusion," "fixed idea," "rudimentary paranoia," "psychic emotive obsession," psychic neurasthenia," "episodic symptoms of hereditary degeneracy."

Such an array of diverse opinions of learned observers proves the controlling influence of the new elements which enter into the nervous constitution during adolescence. A high authority says: "From whatever side or symptom we start, we trace the mental peculiarities of adolescents to the aroused and active affective nerve-centres." How true was the remark of the unlearned victim of insanity, "We are all built that way!"

It is not surprising that adolescents are often not only popularly believed to be insane, so complete is the change of character and conduct, but that thousands are committed to asylums in whom the first impulses of love are misinterpreted as acts resulting from delusions, illusions and hallucinations. Shakespeare gives expression in emphatic language to the popular opinion, "Love is merely a madness, and, I tell you, deserves as well a dark house and whip as madmen do." Carlyle writes more philosophically, "Love is not altogether a delirium, yet it

has many points in common therewith." Plautus says, "It is good to be moderately sane in love." Browning, Coleridge, Tennyson and other writers might be quoted to the same effect, and it is very natural that they should regard love as a species of insanity from the standpoint of its vagaries.

Derangement from Love

THIS is the story of "one who never told her love." Among her adolescent boy companions was one for whom she suddenly conceived a peculiar attachment, but she carefully concealed her feelings. She believed that he entertained the same feelings toward her, but did not make his love known. One day he and a companion went out on the sea in a small sailing craft and never returned. She at once fell into a melancholy mood, and in her morbid mental state gradually came to the conclusion that her friend was not lost at sea, but had gone to some remote country and in time would return and acknowledge his love for her.

She continued to pursue her course of study of art and finally attained considerable repute as an artist. The belief that her long absent lover would return became more and more a fixed opinion and she began to scrutinize men whom she met in the street in the hope that she would

discover him. At length she saw a young man approaching, who, before meeting her, passed to the other side of the street, which impressed her with the belief that he was her friend, considerably changed by time. She followed him and succeeded in learning his name. It was not the name of her friend, but she concluded that he had assumed another name to escape detection, and accordingly wrote him a letter full of endearing terms, urging him to return to her and professing her undiminished love for him, notwithstanding his wandering life and efforts to conceal his identity.

With a detective the gentleman thus addressed visited the writer of the letter, who frankly told them of her long-lost lover and her belief that he was the man, changed both in appearance and name. She was promptly committed to an asylum, and her useful life brought to an abrupt close.

Sad beyond expression is the mental perturbation of adolescents who are the victims of concealed, disappointed, rejected, or despised love.

"Of all pains, the greatest pain,
It is to love, but love in vain."

The daily papers are constantly recording the most revolting crimes, suicidal and homicidal, committed by persons distracted by dis-

appointed love, or frenzied by jealousy. It is not surprising that, in the present state of human society and popular ignorance of the brain, its anatomy and physiology, on which all mental operations depend, so many adolescents are wrecked at this most impressionable period of their lives. By the community they are accounted weak-minded, frivolous, and are made the subjects of ridicule and even contemptuous remarks, though they are passing through a natural physiological process which is preparing them for the higher and more responsible duties of life.

THE lesson which these facts impress is this. During the period of adolescence, when the integrity of the nervous system trembles in the balance, every proper effort should be made to create such associations and affiliations of young men and women as will lead to congenial affinities. The ridicule and contempt with which "love-making" is usually treated is exceedingly unwise, harmful and against divine appointment and a wise public policy. The judicious and discreet "match-maker" is a most useful person as is witnessed in every Jewish community.

Care Required in Adolescence

"Are you married, and if not, why not?" was the pertinent inquiry by the great Chinese

statesman of many gentlemen and ladies to whom he was introduced on his visit to this country. Though regarded as a facetious question and indicative of ignorance of the proprieties of our social customs, it had a profound significance when interpreted in the light of sociology. As a suitable marriage is the true preventive, or remedial measure, of a vast number of physical, mental and moral ills to which adolescents are extremely liable, the principles underlying this institution, sanctioned by the State and solemnized by the Church, should be so inculcated by education, encouraged by society, and sanctified by religion that marriage would become obligatory on every adolescent, except under conditions unfavorable to the individual concerned, or against public policy.

The clear indication of treatment of this, as of all similar intensive actions of a group of nerve-cells, is the effort to divert the affections from the unattainable object, which originally interested them, and to concentrate them upon other objects of as absorbing interest. Physiologically, this treatment involves the diversion of nutrition from the over-stimulated nerve-centres to other inactive nerve-centres. The result would be the gradual shrinking and diminution of the function of the excited nerve-centres and a compensatory activity of newly-aroused nerve-centres.

How can this be accomplished? First, by removal of, or from, the object on which the affections have been concentrated, and every thing or condition which suggests such object. Second, by concentration of the thoughts upon objects of interest entirely foreign to those which originally created mental disturbance. The methods of meeting these indications must be adapted to the peculiarities of the individual and the conditions in each case, but they are innumerable both in quantity and variety. Except in the case of a suicidal or homicidal person, requiring custodial care and isolation from the activities of life, the world abounds with remedies, preventive and remedial, for "adolescent insanity."

VIII

Mid-Life

VIII

Mid-Life

THE period in the life of woman between the years of twenty and forty-five and in the life of man from twenty-five to fifty, may well be called the "Mid-Life" of each sex. With woman it is the period of the creation of the family, and with man it is the period of building and sustaining the home. With both it is a period of physical and mental stress and strain; of testing the inherited tone and temper of every fibre of the constitution; of patient endurance of manifold ills; of measuring the amount and kind of vital forces—"Stock in Trade"—with which they have been endowed, and which they have conserved during the treacherous period of adolescence.

The Time of Testing

Mid-life of a woman is beset with far more incidents and accidents, which tend to impair the integrity of her nervous system, than is the case with her companion—man. The wonderful

mechanism that creates a living soul is her inheritance. On her alone fell the heavy penalty, "in sorrow thou shalt bring forth children." She alone endures the pains and perils of maternity, and she alone—highly favored— experiences its anticipations and its ecstacies. But at every stage in its progress her nervous system is in a state of tension requiring continued care and effort to maintain its normal equilibrium.

Occasionally, alas, when the crisis seems to have been safely passed, the affective faculties yield to the long-continued strain and the old demoniacal possession recurs. The child, the object of so much anticipated joy, is rudely thrust from the breast that is giving it nourishment, and all of the maternal instincts of affection are turned to hate and violence against the innocent and helpless creation of her own blood and body.

Fortunately, from this maniacal state the mother usually rallies as the nerve centers of the affections recover their energy and cast out the demon of insanity. But frequently we meet the wrecks of maternity in the wards of the asylums, and sometimes in the pitiable condition of dementia in which the sufferer gratifies the still strong maternal instinct by carefully nursing a "rag-baby."

Another feature of Mid-Life in woman, tending in many temperaments to mental depres-

sion and melancholia, is the necessary isolation which her duties in her home create. Man is a "social, gregarious animal," says the philosopher, and universal experience proves the truth of the proposition. No man can live to himself and develop all that is possible in his physiological constitution. The recluse, the ascetic, the man retired from business, suffers from atrophy of large, unused sections of the brain, which tends to mental feebleness and imbecility.

WE conclude that the decision of the Council of Creation, "It is not good that the man should be alone," applies with equal force to the woman, who was made "an helpmeet for him."

Woman's Need of Companionship

It is painful to see so many wives of farmers in the asylums and hospitals, most of whom are suffering from forms of mental depression. Their insanity is usually traceable to some apparently unimportant event, but which was sufficient to unbalance a nervous system already weakened by long isolation from the tonic stimulant of social intercourse.

The measures preventive of insanity in the "Mid-Life" of woman, as suggested by our previous studies, are simply to treat the human mother with the same care with which we treat the brute mother, viz., protect her from worry,

fatigue, and undue excitement and disturbance, supply the housewife with adequate means for social enjoyments, as the telephone, magazines, a library, neighborhood gatherings for entertainment or cooperative labor, frequent holidays for sight-seeing and travel. It will, of course, be alleged that the ordinary farmer, mechanic, tradesman, and laborer, cannot afford the time nor the expense for indulgence in such luxuries; but there is no force in such an excuse when we contrast the benefits, which certainly follow the adoption of some or all of the above measures, with the consequences which attend their omission.

The Mid-life of the man, who builds and sustains a home amid the uncertainties of modern competition in business, is constantly subjected to a mental and physical strain that ought, apparently, to terminate in a nervous break-down of a large percentage. Does not the fact that so few of the most active men in every department of business become insane, prove that the integrity of the brain-cells depends, like other tissues of the body, largely on their functional activity? We have amply demonstrated that the cell which ceases to perform its accustomed function must atrophy, or return to its rudimentary state. With the modern business man there is no cessation in the activity of the brain-cells devoted to his business during his Mid-Life period, and hence

there is no lapse in their functions, no derangement, no unsoundness, no insanity. It is when conditions interrupt their functioning or arouse other nerve-centers to an activity which dominates all others, that the normal course of thought and action indicates mental aberration.

How can the business man prevent insanity? Certainly not by retiring from business, but by so regulating its details as to cause the least worry or anxiety. The business man who has eight hours of uninterrupted dreamless sleep in the twenty-four hours will maintain and sustain —"other things being equal"—a sound mind in a sound body. While, therefore, there are perils in the liabilities to great disasters in business of every kind, there is compensation in the power of resistance which the nerve elements acquire by constant stimulation to activity through contact with opposing and contending forces.

IX

Climacter

IX

Climacter

CLIMACTER is a technical word which means a dangerous or critical period of life, a period in which some great change is supposed to take place in the human constitution. The older writers attached much importance to these periods, but without having any rational basis for their opinions other than imperfect observations. They reduced these periods to a system of seven years each. They regarded the years ending the third, fifth, seventh, and ninth periods as climacteric—dangerous, critical—because a great change takes place in the constitution. The year ending the ninth period of seven years—the sixty-third year—was called the grand climacteric. Though there is a physiological basis for some of these periods, the changes in the constitution which they are supposed to indicate occur so variably as regards individuals that they have only a general significance.

The Time of Crisis

The true import of the "grand climacter," in every person who reaches that period, is the beginning of the atrophy or wasting, and return to their dormant condition, of the nerve-centres on which depends the perpetuation of the species. Great as was the change in the nervous constitution of the individual when these centres were aroused to activity in adolescence, not less great and disturbing is the change in the elements of the brain structure and functions, and hence in the mental and physical conditions of the same person when their activity begins to decline.

New Centers of Activity

THE rich currents of nutritive blood, now diverted to other sensitive and susceptible, but formerly passive centres, may so change the mental characteristics and conduct of the individual as to justify the verdict of insanity. Or, again, if this diversion of blood is to centres long active, they may be so overstimulated that the equilibrium is unbalanced and traits of conduct and character, hitherto normal, become so exaggerated as to change the mental operations in a very marked degree.

The immediate effects of these changes is most noticeable in the mental states of women. An alienist author writes: "The affectiveness changes in its object and greatest intensity from the mate to the progeny, losing its imag-

inative force, its fire, and its impulsiveness; poetry and love tales cease to have the power to set the brain on fire; action of all kinds ceases to be so pleasurable for its own sake; much of the go is out of the person; the instinctive feeling of difference of sex and all that it implies, which has been all-pervading before, now lessens visibly; the subtile interest of the society of the other sex is less electric and overmastering; the form alters and the expression of the face changes; the blood-forming and blood-using processes slacken in speed; life becomes slower, mentally and physically."

The same writer traces the development of insane ideas during this period along these lines: There is a loss of energizing power, bodily and mentally; failure of courage; groundless fears, which are at first known to be groundless; annoyance from trivial things; dreamy, broken sleep; dread of appearing in company, or in public, no restful feeling, no contentment or happiness.

These conditions may pass to more real and continuous depression; the morbid fears assume a more intense character, though they are often still indefinite; the person is sure some evil thing is going to happen but cannot tell what it is to be; self-control is often lost, but more frequently there is fear that it will be lost. There are vague impulses towards suicide, sometimes

towards hurting children and friends, which add to the terror and intensify the depression; a conscious loss of affection, or, rather, a loss of the pleasurable feeling, that conscious affection for the members of the family gives, is a cause of the greatest distress.

In extreme cases suicidal feelings are strong and attempts frequent, but the very loss of courage and vigor of will operates against any effectual attempts at suicide; hallucinations of hearing are frequent. Finally, this condition may pass into acute excited melancholia and exhaustion, or it may become a chronic, shy uselessness or paralysis of power.

A lady forty-five years of age, mother of several children, began to be depressed, then very irritable and fault-finding. A feature of her irritability was developed towards her husband; she could neither endure his presence, nor his absence; she drove him from her room with violence and insulting language, and then charged him with neglect while he was absent and begged him to return, only to renew her violence on the touch of his lips, though insisting on kissing him. She was committed to an asylum, but promptly threw herself from a window, receiving a profound shock and a broken leg, followed by a severe hemorrhage. Prompt recovery from her insanity resulted.

The remedy in this case was severe, but it was

a repetition of the method of treatment followed by the old-time practitioners, who believed that nature indicated repeated blood-letting as the proper treatment during the climacteric period. It was also held by the ancients that a severe shock to the nervous system was the kind of diversion the patient required to restore mental equilibrium—two remedies which this lady received.

In a rude and general sense these indications of treatment have a physiological basis and are correct, and, when properly met, give a measure of success, as in the case given in illustration. The course of blood-lettings, so generally practiced but a score or two years ago, are rarely required, as far more simple and equally effective measures may be employed.

The Effect of Inactivity

A CULTIVATED lady, the mother of a family, had been devoted to the care of her house from her marriage at twenty. Housekeeping was with her a matter of absorbing interest, even to the minutest detail. She was of an excitable temperament and any disturbance of her household arrangements was the source of great annoyance. At the age of forty-five a change in her physical and mental condition was noticed by her friends. In family consultation it was decided that she was suffering from too much care of household affairs, and it

was proposed that the eldest daughter assume the charge of the home and that the mother should be completely relieved of her former duties.

Accordingly the daughter began to assume the position of mistress and the mother was required to spend her days quietly and unoccupied in her room, to retire early and rise late, and avoid every form of household duty. At first the mother accepted the situation and seemed pleased with the change, but soon began to exhibit a train of new symptoms. She became more wakeful than usual, conplained of flashes of heat, headaches, bad dreams; her complexion became sallow, her appetite fickle. Her mental condition changed; she was more easily annoyed, refused to see friends, conversed with herself, feared burglars and examined every door and window at night. As time passed her feebleness and depression increased, suspicions of persecution appeared, and, later, she developed delusions of hearing which took the form of suggestions of suicide and homicide. She was duly examined by expert physicians, adjudged insane, and committed as a dangerous lunatic.

The sequel of her case was very happy and instructive. The superintendent of the asylum to which she was taken was a learned and experienced man in his specialty, and, withal, had sound judgment and a large measure of good

sense. After a thorough examination of all the facts in her history, and a careful study by proper tests of her bodily condition, he advised that she return home and be allowed to resume her former household duties. He gave specific directions to her attending physician to the effect that the first and most essential feature of the treatment was occupation of her thoughts with her life-long duties; second, improvement of her digestion; third, bathing, with well regulated massage; fourth, excursions which should give the greatest amount of diversion.

She did not enter the asylum, but returned home, and the treatment recommended was faithfully followed. The result was most favorable; the patient readily resumed her household duties and at once ceased to complain; the physician corrected errors in her diet so that her nutrition rapidly improved; the bathing and massage were enjoyed after a brief trial, and the out-door exercise diverted her thoughts to natural objects, which tend powerfully to quiet a mind disturbed by insane ideas.

The lessons which we learn from a study of the physiological changes of the nervous system, and the consequent mental disturbances at the climacteric periods, are so closely related to the final decadence of all of the tissues of the body that the peculiarities of what is familiarly known as "old age," or the post-climacteric period, requires our study in this connection.

X

Old Age

X

Old Age

LD age, the period of decadence, physiologically begins with the passing of the climacter. What is its significance? In the average person it means the decline of all of the physical forces and functional activities. For two-score years the nervous system has been aflame with passion, fervor and ambition; the bodily temperature has been at fever heat; the heart has throbbed with tremendous energy; every muscle has been keyed up to its utmost tension; every sense-organ has been keenly alive to impressions. Now the fires begin to slacken, the fever declines, the heart slows down, the muscles relax, the senses become dull. Sadness, like a malarial chill, creeps along the nerves. The long-active nerve-centres, now unused, shrink and undergo loss of vitality; the arteries become brittle by changing to bone, or soft and weak by deposits of fat; the joints stif-

The Time of Decline

fen from want of the lubrication that comes of constant use; the senses—sight, hearing, smell, taste, touch—decline in proportion as they cease to be actively employed.

The rush of business, the clash of rivalry, the heat of contention no longer stimulate to activity, but rather increase the desire for quietude, repose, retirement. The arm-chair in the cozy corner, the smoking cap, the dressing gown and easy slippers, meet every want. Eating, drinking, smoking, sleeping are the favorite pastimes. The body becomes over-laid and over-weighted with fat, and every organ—heart, liver, kidneys—is clogged with waste.

All of these conditions tend inevitably to that degeneration of brain tissues which terminates in dementia, or paralysis. The approaches of the former, says an author, will begin in slight failure of mind, slight change of character, and slight loss of muscular strength and accuracy of muscular adjustment, proceeding, sometimes faster and sometimes slower, with occasional temporary improvement, to complete dementia, and helplessness. Paralysis, due to effusion of blood from a ruptured artery of the brain, will, on its first occurrence, be slight, as the artery is small; the second stroke will be more severe, as the artery is larger; and the third will probably be fatal for the same cause. Truly "we are all built that way."

BUT is there no obverse side of this picture? Have we no power of retarding, if not preventing, the degeneracies and consequent insanities of old age? A very pertinent answer was given by a nonagenarian physician to one who inquired by what mode of living he maintained a high degree of health at such a great age: "I have always kept my brain and stomach in good repair and very busy." This answer was characterized by good sense and it embodied two physiological truths very compactly stated. The brain, the source of vital energy, and the stomach, the source of nutrition, maintained in a state of functional activity, are capable of retarding the decadence of old age.

Can We Remain Young?

An ingenious physiologist explains the phenomena of old age in terms that give point to the nonagenarian's rule of living, as follows: "A healthy, well nourished human body is maintained in that condition only when each cell-structure is performing its normal or physiological function. In proportion as that function diminishes, the cell shrinks and wastes. The powerful arm of the blacksmith soon withers to helplessness when placed in a sling, owing to the diminution of the blood-supply to its nerve and muscle cells, but if the normal use of the arm is restored these cells soon resume their activity by the increased nutrition."

Bandage the eyes, and the nerve and nerve-centre of sight will waste until blindness ensues. Restore the light, the natural stimulus of the nerve-centre of sight, and its cells at once begin to resume their activity, and through the increased flow of blood which results, they enlarge to their natural size and their functions are fully restored.

A surgeon of great eminence determined to retire to the country at the age of sixty and enjoy the remainder of his life in the quiet and leisure of rural scenery. He had been very successful in his profession, to which he had devoted every energy of body and mind for a generation. He was a popular teacher in the medical college, an author of great repute, and took rank in society among the first citizens. He purchased a large and well appointed estate and with much ceremony and publicity retired from business and entered upon his new mode of living.

All the conditions of his daily life were changed. The very stillness of the country prevented sound and refreshing sleep. He arose in the morning, depressed by the thought that no patients would call and at a loss how he could employ his time. Walking soon became irksome, riding tedious and very tiresome, the affairs of his estate were uninteresting because the details were unfamiliar. He became irrita-

ble, morose and melancholic; delusions of conspiracies against his person and property followed, and scarcely a year elapsed before he was pronounced of unsound mind, and unable to manage his estate.

His son-in-law, also a surgeon of repute, became his guardian. Believing that the breakdown of the father-in-law was due to an abrupt change of occupation, the young surgeon restored him to his former office. His old patients returned, and scarcely a week passed before the senior surgeon was himself again.

THE plain, practical lesson, which this, and thousands of similar cases, teach, emphasizes the physiological truth that those who reach the border-land of old age and begin to suffer the sadness incident to the depression of the vital forces should strive to keep every organ of the body attuned to its normal functional activity. Retirement from business at this period, to enjoy the fruits of a life of toil, is to turn one's face towards the cemetery to which he will hasten with ever quickening step.

Remain Active in Old Age

The asylums number among their insane inmates aged, helpless dements and imbeciles, by the score, who could have enjoyed a vigorous old age had they not passively yielded to the de-

pressive influences which attend the abatement of the vital forces at sixty. The brain, the source of vitality, and the stomach, the source of nutrition, maintained in good repair and healthy activity at ninety, are rational philosophy and sound physiology. No one can grow old or be old while these two organs are in good condition.

Victor Hugo stated that when he reached the age of sixty years he was seized with a sadness which made him very miserable, but he pressed forward with his daily tasks with unabated vigor. At seventy he recovered all of his former buoyancy of spirits and life, and was as full of brightness and happiness as in his boyhood. Reflecting upon this peculiar change of feeling and outlook upon life, he came to the conclusion that at sixty he entered upon the old age of youth, but at seventy he entered upon the youth of old age.

The experience of the great French writer, who continued activity at his life-work far beyond the allotted period of life, should impress the lesson that the best protection against the dementias and imbecilities of old age is the maintenance of the healthy functions of the brain and stomach. We often hear of persons who grow old gracefully. They are the energetic class, who never retire from the activities of life in one form or another. With them

there is no climacter, or change of life, but the current runs smoothly on, ever widening, ever deepening, until it is lost in the ocean of eternity.

Whittier was several years the senior of Holmes, and when the former reached the age of eighty, the latter, in a witty poem, inquired as to the outlook from that dizzy height. Whittier replied in the same strain, giving a glowing account of the scenery from that view-point and urged Holmes to hasten up the steep ascent and enjoy with him the glorious prospect, assuring his friend that there would be no more climbing as the path, radiant with the dawn of the life beyond, had a gentle descent to the river.

We conclude, therefore, that, although "we are built that way," we may escape the insanities of childhood, adolescence, climacter, and old age, if we strictly comply with the physiological laws governing the evolution of the body during these periods.

By taking heed to our ways we may peacefully and happily pass through the sixties; at three score and ten, realize the joys of a renewal of life with Victor Hugo; at four score view the future with the serenity of Whittier; and if we keep the brain and stomach busy, we may pass, with the nonagenarian physician, into the nineties; and thence, by Grace, with the last words of Sir Henry Irving on our lips: "Into Thy Hands, O Lord."

XI

The Prevention of Insanity

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The Prevention of Insanity

WE conclude, therefore, that "we are built that way," and but for certain conservative or inhibitory forces, inherent in the constitution of the brain-cells, we should be liable at any moment to become so "deranged," "strange," "peculiar," as to be adjudged insane. It is only necessary, indeed, that a group of cells should become so disturbed in their operations that they control the person's mentality, to raise the question of sanity. This may happen on the instant, when some exciting cause, to which the cells are intensely susceptible, overwhelms the brain with its disturbing force. Generally, however, the change is slow and often very insidious, and may not be detected for a considerable period.

The Liability to Insanity

To discover the first departure from the path of normality, and the inducing cause, may be a very simple or a very difficult act. In either

case the first aberrations are frequently limited to a single, and, perhaps, obscure function of the brain. Gradually other affiliated nerve-cells become involved, and, finally, the mental expressions show that large sections of the brain have become tainted with the original infection. Shakespeare traces the progress of the insane ideas thus:

"And he repulsed (a short tale to make),
Fell into a sadness, then into a fast;
Thence to a watch; thence into a weakness;
Thence into a lightness; and, by this declension,
Into the madness whereon he now raves."

The Prevention of Insanity

HOW the harmony of functions of the brain-cells may thus be disturbed by natural conditions in the life of every one, what are the causes of such disturbance, and by what signs and symptoms they may be recognized at the earliest possible moment, are questions of immense and pressing importance to parents, teachers and individuals. If these questions were affirmatively answered, so as to be thoroughly understood by the general public, such preventive measures could be adopted in the home-training of children, in the education of youths, and in the personal living and conduct of the masses of the people, that

our asylums would be depopulated by depriving them of fresh recruits.

The parent would detect in the evolution of the physical constitution of the child the first evidences of an abnormal development of any given class of nerve-cells, and would quietly, but promptly, adopt proper measures to secure their repression. The instructor could not fail to discover and appreciate the most subtle mental peculiarities of his pupils, and, with the abundant means at his command, he could effectually counteract their incipient tendencies. And, finally, each person could intelligently interpret the true significance of any and every passion, propensity, habit, thought, emotion which influenced or controlled his acts.

XII

The Susceptibility of the Insane to Curative Measures

XII

The Susceptibility of the Insane to Curative Measures

HILE the extreme sensitiveness of the brain-cell to impressions, both from external objects through the medium of the five sense-centres, and from deleterious substances circulating in the blood (auto-intoxication), tend powerfully to cause deranged mental action, the same condition is fortunately very favorable to its recovery. We are often surprised at the slight and unimportant circumstance or occurrence that so disturbed the equilibrium of the brain as to require the commitment of a person to an asylum, and, quite as frequently, we are not less surprised at the simple and unimportant incidents which often change the mental operations of the insane and restore their sanity, or so far relieve them of any disturbing or dangerous

Brain-cell Sensitiveness Favorable to Cure

tendencies that they may no longer require custodial care. The following cases came under observation:

Cured by a Bowl of Hot Soup

THIS incident occurred in the life of a distinguished public man and famous orator, who became melancholy owing to an incident reflecting upon his character. He finally refused food, was wakeful and restless, and began to wander from home. Commitment to an asylum followed. On entering he was greatly emaciated, talked incoherently about the conspiracy formed to ruin him, slept little, resented every effort to control his movements, and finally became violent at times. Worry and consequent insomnia and inanition had exhausted his brain-cells, and without proper care dementia would have resulted from the inevitable atrophy of these cells, from which he would never have recovered under the ordinary routine treatment of the asylum.

"I protest!" said the patient as he arose in bed and with much deliberation drank the bowl of hot, rich soup. The asylum physician had carefully examined him on admission and concluded that he was suffering from exhaustion due to want of proper nourishment. Accordingly, he had a bowl of nourishing soup pre-

pared and brought to the bedside and the patient was directed to take it. He promptly and with great emphasis declared he would not under any circumstances. On the failure of repeated efforts to persuade him to drink the soup, the physician assumed an appearance of determination to compel him to obey.

He ordered an attendant to bring a stomach pump and an assistant. On their arrival the superintendent, holding his watch in his hand, looked sternly into the face of the patient, and said: "I will give you just five minutes to drink the soup, and if you do not I shall pass this tube into your stomach and pump the soup into it." The physician then called, "One minute! two minutes! three minutes! four minutes!" when the patient arose, and, taking the bowl in both hands, said in a dramatic manner, "I protest!" then drank the liquid.

The effect was as anticipated. After some excitement sleep ensued. This was the firsf nourishing food and refreshing sleep that he had had in many months. He awoke after several hours and realized his condition. His recovery was rapid and complete, and he continued of sound mind until his death many years later, of an acute disease.

BELIEF that he was immune against arsenic led to the discharge of a paranoiac as recov-

ered. He was an old man very much emaciated and feeble, who begged piteously to be discharged from the asylum. His chief complaint was that arsenic was put in his food and that he was suffering for the want of proper nourishment, which was evident from his appearance. As he said he could show me the arsenic in his food, I visited his table at the dinner hour and he pointed with great excitement to a greenish tint on the fried eggs, and declared that it was arsenic. After dinner I had an interview with him. "What would you do if you had such food regularly given you?" he inquired. "Eat it," was my reply. "What! allow yourself to be killed by these conspirators? Not much!" he said. I assured him that arsenic was not poisonous in small doses, such as appeared on his food; that a great many ladies took it to improve their complexion; that some persons are immune against the effects of poisons; that he appeared to be one of that kind; that it was well worth the risk of a trial, for if he proved to be immune, and ate his meals regularly, never alluding to poisons again, he would soon be discharged; but that if he persisted in refusing his food, because it was poisoned, he would never leave the asylum alive.

Cured by a Suggestion

He was greatly impressed with the statement

that a person could be immune against such a poison as arsenic. He hesitated some time to make the trial but at length he yielded, on my assurance that he was undoubtedly immune and that he would secure his discharge if he ate regularly and never again mentioned the word poison.

On visiting this asylum several months later I found this patient at work in the "Cook House." He was bright and cheerful and his face shone with fatness. He had found that he was immune against arsenic, ate all his food with a relish and was enjoying excellent health.

On parting with him he cautioned me not to mention the word "poison" to the Superintendent, as the latter had promised him his discharge on the following Monday and he never wished that word used again for fear it would lead to his detention. Approaching me cautiously and whispering in my ear he said, "Since I came to the Cook House I have learned just how they do it, for I see them put the arsenic in the food." Nevertheless his belief that he was immune against arsenic led to the discharge of this paranoiac as recovered.

A NIGHT spent with the insane effectually cured an incipient case. The patient was a young man who gradually exhibited symptoms

of derangement, and finally became so disturbed that his family were alarmed. By the advice of the family physician he was taken to the "Insane Pavilion" at Bellevue Hospital, New York. He passed a sleepless night owing to the disturbance of his companions. In the morning he begged to be taken home and promised never to repeat his previous conduct. He declared that he was so shocked at what he saw that he began to think, "Is this what I am coming to? I will change my life here and now." He was able to control himself thereafter, under the influence of that night's experience, and remained sane during his lifetime.

Cured by a Shock

"Can a paretic—a person suffering from 'general paralysis'—recover?" was an inquiry made of a superintendent distinguished as an accurate diagnostician. He replied: " I was formerly of the opinion that paresis was an absolutely fatal disease, but a case under my observation unsettled my belief in its incurability. He then related in substance the following particulars:

A man was admitted to this asylum whose history gave a complete clinical record of paresis. His disease progressed as a typical case of that trouble until it seemed to have reached its final stage, and a fatal convulsion was anticipated at any time. The patient's wife was then

notified of his condition and she visited him for the purpose of removing him to his home in fulfilment of a promise she had made him, when he consented to enter the asylum, that she would never allow him to die elsewhere than in his own home.

She was informed that it would be very unwise to remove him, as he could not possibly endure the journey of twenty miles. She insisted, however, even if he should die on the way. Consent was finally given on her assuming all responsibility, and every effort was made to render his transportation comfortable and to provide her with the means of meeting any and every emergency.

Cured by a View of Home

DURING the long journey he remained in a semi-conscious condition, occasionally taking such food and stimulants as she gave him. On approaching his home, his house suddenly came into view from a hill-top, when he became excited and attempted to speak and rise from his seat. On her inquiry as to the cause of his excitement he muttered, with great effort, "Is not that my house?" From that moment he began to recover. The superintendent, one of the most distinguished in the country, added: "To-day he ranks as the best farmer in his county, as he takes the largest number of prizes at the annual fairs."

This case is not related to illustrate the possible curability of paresis at an extreme stage of its progress, but rather to show the effect of arousing to activity nerve-centres, long dormant, by change of environment. Though there may have been an error of diagnosis, the fact remains that this man was believed to be in the last stage of a fatal disease and that his recovery dated from a new stimulus to his brain by a view of his house. The lesson which we learn is that the cases of insanity apparently most hopeless should not be abandoned.

Cured by Good Advice

"THIS is a Lunatic Asylum and not a Sanitarium, which they said I was to come to. I want to go home. Do you know how to get out of this place?" This was the greeting which the visitor received on entering the disturbed ward of an Asylum. The patient, who had just been admitted, was a young man, intensely excited, much emaciated, with hair disheveled, eyes protruding, arms thrown wildly about, voice hoarse from screaming. He was the picture of one suffering from acute mania, for which he was admitted.

As he rushed up to the visitor and asked the above question the latter was seized with an impulse to attempt to quiet him, and placing his hand on his shoulder in a familiar manner

whispered in his ear, "Yes, I know how to get out of here, but I should not dare tell you as you speak so loud that the attendant might learn what I had done and would have me locked up." He immediately became quiet and begged my pardon in a whisper, declaring that he would keep the secret if I would help him escape.

Taking him into a private room I expressed my doubts as to his being a proper person to whom I should reveal the secret; that he must first give me an accurate account of his life and all of the circumstances which led to his being committed. He related a series of business transactions which had greatly disturbed him, culminating in an incident which led him to believe that his wife was unfaithful to him through the influence of the Catholic priest. This event was the climax of his efforts to control his acts and for a fortnight, or until brought to the Asylum, he said. "I painted the village black as h—l." The last shock to his nerve-centres, exhausted from want of sleep and nutrition, was to find that he had been deceived by his friends by being placed in a Lunatic Asylum instead of a Sanitarium.

A few words of comment on his nervous condition, an explanation of the events which so disturbed him, and an emphatic denial of the construction which he put upon his wife's conduct, and the added charge that he had evi-

dently treated her shamefully and cruelly, broke him completely down. With tears and sobs he acknowledged his mistakes and asserted with great earnestness, "I see that I have been a d—d fool from the start."

Promising to strictly follow advice, he was directed in detail how to conduct himself, viz., be very quiet, very clean and well dressed; keep his room in perfect order; constantly assist the attendant in all of his ward work; endeavor to preserve order among the patients by his example and kindly attention to their wants, show no irritation or resentment in his treatment by patients. He was assured that he would be discharged within a week if he followed strictly the rules of conduct prescribed.

On visiting the Asylum two months after this interview it was found that he was discharged, "not insane," on the fourth day after admission. On calling the attention of the Superintendent to his case he remarked that the physician who committed him made a very grave mistake, for though much disturbed on entering the Asylum he soon quieted down and proved to be the best worker and most useful man about the place. Frequent inquiries in regard to him after his return home showed that he had continued perfectly well.

What saved this man from becoming a permanent resident of the Asylum? He entered a

complete "nervous wreck" and was in a frenzy on finding that he was in a "Lunatic Asylum" instead of a Sanitarium; he was assigned to the "disturbed ward" where fifty or more inmates similarly affected terrified him with their ravings; no officer had inquired into the peculiarities of his case and kindly advised and encouraged him, nor in the ordinary course of treatment was he likely to receive such attentions at any time. Undoubtedly the quiet, friendly inquiry into the events which led to his commitment, an explanation of their significance with impressive firmness, and advice as to his conduct to secure prompt release, led to his immediate discharge, saved the State from the expense of his support for fifteen years, the average life-time of inmates of Asylums; and, finally, returned to his home in sound mind its supporter and protector.

"INSANE Women Go Shopping," is the startling headline of a daily paper. It appears that the Superintendent of an Insane Asylum was impressed with the belief that diversion would aid in curing the insane, and put his theory to the test by allowing sixty women patients suffering with milder forms of mental disturbance to visit a department store. The first party consisted of twenty patients and is thus described.

"Two attendants were in charge of the shoppers. Their uniforms were left behind and they

abandoned as far as possible all tokens of authority.

"Mingling in the crowds down town and in the big stores, the patients and attendants were swallowed among thousands of other women bent on the same mission. The patients purchased with a keen regard to appearance and value, just as their normal sisters were buying all about them. Apparently the saleswomen noted nothing unusual in their demeanor.

"Laughing, chatting, haggling with the saleswomen, they spent their time and money all too soon. They were loath to return when darkness found them still at the counters buying what they could and admiring the much greater treasure of what they could not purchase. Above all, they were impressed with the novelty of a moving stairway in a big department store. Some, timid at first, became frequent passengers on this stairway and left the store grudgingly."

The Superintendent says of the experiment: "Such recreation as that afforded by a day in the stores is a valuable part of the treatment for the insane. Just as normal persons are better merry than moody, so are my charges improved by anything that pleasantly occupies their minds while at the same time not exciting their nerves."

The most impressive lesson which my experiences among the insane taught was the vast importance of a thorough examination of the patient by a competent person at the earliest possible period. Thousands are admitted to the institution, classified and assigned to wards, merely on the statement of the certifying physician in the commitment papers which accompany the patient. In the wards they are subject only to the general observation of the attendant, in connection with fifty or more who constantly require his care.

Importance of an Early Examination

Long periods often elapse before a case attracts the special attention of the medical officer, if, indeed, at any time his interest is sufficiently excited to induce him to deliberately study the case exhaustively. And yet untold numbers of insane might be immediately placed under conditions which would result in quick recovery if their physical condition was understood and all of the circumstances of their nervous break-down were exactly determined.

PART THREE

THE CARE AND TREATMENT OF THE INSANE

XIII

Mechanical Restraint

XIII

Mechanical Restraint

THE treatment of the insane forms one of the saddest chapters in the history of the evolution of human society. It is one continued record of savagery down to our own times. Indeed, we have scarcely passed from under the shadows of the pernicious influence of the belief in the demoniacal possession of the insane, to which we may trace most of the cruelties practiced upon them. That superstition was discarded long ago, but its results, in the barbarous treatment of the insane, have been an inheritance which clings to us with a tenacity that often controls public policy. But we are making manifest progress in our better care of the insane, and, fortunately, under the safe and sane guidance of science and the humanitarian spirit of the age.

A Sad Chapter

Reviewing the dominating forces in the care and treatment of the insane in the past, and at

present, and forecasting them for the future, we should give for the past, *Mechanical Restraint,* for the present, *Custodial Care,* and for the future, *Curative Treatment.*

It is along the lines of such a characterization that the question of care and treatment of the insane can be most intelligently considered.

Mechanical restraint, as a recognized method of treatment of the insane, ceased during the years 1882-1888. When I performed the duties of State Commissioner in Lunacy every form of appliance for the restraint of the disturbed insane was to be seen in constant use. They were found in manacles, in "stocks," in dungeons, chained to posts, strapped in bed, etc.

Treated Like Animals

IN one alms-house a man was daily brought out of a stall in an out-building, where he had been confined twelve years, arms pinioned and led by his keeper precisely as a dangerous animal is treated. Meantime, another man cleaned the stall and supplied fresh straw for his bed.

In another alms-house seven women were found in separate stalls in a barrack in a state of indescribable filthiness. Their attendant, or keeper, as he was called, was a demented man, who could scarcely answer a question.

In the State and private asylums the methods

of restraint were comparatively mild, as confinement in isolation rooms, the restraining sheet, the straight-jacket. The exceptional method of restraint was the famous "Utica Crib," which, owing to the heated discussion for and against mechanical restraint, obtained a world-wide reputation.

It consisted of a box-bed with a movable slat-cover which prevented the patient from rising and was designed for meeting the necessity of maintaining in a recumbent position feeble inmates who persisted in walking about the halls. This device took the place of confinement in bed by means of straps, or other means. It was a harmelss affair in that it could do the patient no physical injury; and when used for the purposes for which it was originally made, was very beneficial. On a visitor who saw the patient through the slatted cover the impression was liable to be that the inmate was being tortured, and this opinion was likely to be confirmed by the patient's complaints and urgent request to be relieved.

The era of Mechanical Restraint was necessarily characterized by the violence of the inmates of asylums, the rudeness of attendants, and absence of the close supervision of the officers. A disturbed patient safely restrained by whatever means was angry and resentful, the attendant who had struggled to place him

in restraint was elated at his success, however rudely he may have handled him, and the physician in charge no longer feared an outbreak, and therefore his anxiety ceased.

XIV

Custodial Care

XIV

Custodial Care

THE records of many institutions for the insane show that by present methods of treatment one-fourth in general, and one-third at best, are discharged from the asylums cured. And those reported cured seldom recover because of any special treatment adapted to their individual cases. "They just get well," said a Superintendent. And it is little less than a miracle that even one recovers his normal mental equilibrium amid the distractions of the ordinary asylum.

Inadequacy of Present Method

But in considering the question of the curability of the insane it is a most encouraging fact that one-fourth of those committed as insane actually recovered under conditions which tend powerfully to unbalance a sound mind. It is a striking proof of the inherent capacity in the cell to revert, after being disturbed, to its nor-

mal state. This power and disposition of the cell to resume its original function, when the disturbing cause is removed, has been shown to be one of its most important features in conserving and maintaining its integrity.

Another peculiarity of the cell must be considered, viz., that when a cell is functionally deranged it tends to derange other cells in immediate relation with it, as occurs in any mechanism. Hence, the importance of the earliest possible cure.

The practical question which the preceding facts suggest is, How can the policy of the State in the management of its institutions for the insane be changed so as to enable them to increase largely the ratio of cured, or, in other words, to render them curative as well as custodial?

In all the conditions which pertain to the physical health and comfort of the inmates these institutions are amply equipped, but for custodial rather than curative purposes. And in all of the details of management as custodial institutions there is, only exceptionally, any just ground of criticism. The governing commission and the local managers are usually appointed with due discrimination as to qualifications. The Medical Staffs take high rank in the profession and perform their official duties with skill.

Nor can these institutions be condemned for

failure to treat the inmates humanely. The most constant complaint of the insane is cruel treatment. The forms of cruelty alleged are of every variety, from merely refusing the discharge of inmates to gross kinds of corporal punishment. The investigation of these ever-recurring complaints of ill-treatment by patients and their friends established the fact that the insane are peculiarly liable to construe every act of restraint or discipline as a form of personal abuse. Nor is it difficult to explain this tendency. As a class the insane are intolerant of restraint of any and every kind. They resent all interference with their personal liberty. The supervision and discipline required and enforced in institutions are rarely submitted to without mental disturbance, taking the form often of physical struggle. If the attendant resorts to any force, however mild and harmless, the patient is thrown into a paroxysm of rage which requires force on the part of the attendant to control. This necessary effort of the attendant is always construed as an assault.

Although it is a fact that the insane in asylums are sometimes too rudely treated, and occasionally unjustly assaulted, yet a careful inquiry as to the truth of a large number of complaints satisfactorily proved that such occurrences are infrequent, and usually result from attacks of patients upon attendants, who lose

self-control, or from the violent resistance of patients to the rules and regulations of the asylums. Indeed, the comparatively small number of cases of abusive treatment which were proved to be cruel and unprovoked by the conduct of the patients was a most gratifying surprise.

Cruel Treatment Exceptional

KNOWING from long experience how difficult is the task of securing a class of attendants upon the sick in general hospitals, who will always be patient, cheerful, attentive, and considerate to the persons in their charge, I had anticipated that in institutions for the insane there would be found far greater abuses in the treatment of the inmates, by the attendants, than in hospital practice. Certainly, it requires a higher order of mental and moral character, greater self-control, and a more impressive personality to win the confidence and respect of the insane than of the patients of the ordinary hospital ward. And it was creditable to the management of the State Asylums that the attendants were generally found to be of a higher grade than in public hospitals, and that they exercise a degree of patience and forbearance under most trying and annoying circumstances worthy of the highest commendation.

XV

Curative Treatment

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Curative Treatment

IN States with a well organized system of lunacy administration, the question is, How can a research and curative department, thoroughly adapted to meet the requirements of modern science, be engrafted upon the custodial Asylums? Fortunately, these State Asylums are generally located on large arable tracts of land which permit the extension of the present arrangement of buildings to any desirable extent, or in any necessary form.

The New Department

An ideal arrangement of the ordinary State Asylum, admitting the incorporation of the curative branch of the service, would be to create the following divisions of administration, viz., the Research, the Curative, the Industrial, the Custodial, and the Hospital. The object of this division of the service is a graded classification of the inmates in the order of develop-

ment of their several forms of mental derangement. This separation into specific classes insures far greater precision in the details of care and treatment of individual inmates.

Every patient, on admission, would be assigned to the Research Department, where an exhaustive investigation would be made of his or her life-history and present physical condition. The result of this study would be an accurate diagnosis of every essential feature of the case and consequent precision in determining the course of treatment to be pursued. When the diagnosis is satisfactorily made the patient is transferred to that one of the other departments adapted to the conditions found, viz., the Curative, the Industrial, the Custodial or the Hospital. In the organization of these departments there should be such a separation of the Curative from the others that to common observation there is no connection.

THE Curative Department should be under the exclusive control of a Research Staff, and located on isolated, picturesque grounds, laid out and cultivated as a park. The buildings should consist of such a number of cottages, arranged on the plan of a village, as would accommodate in small family groups all of the patients admitted for a period of six months.

Cottages In a Park

There should be cottages for the resident medical staff, an isolation building for immediate care of the disturbed, a gymnasium and a library. This department should be equipped with every device necessary to accuracy of diagnosis and precision in the use of remedial measures.

The purpose of the isolated, picturesque grounds and cultivated park-garden is to have the entrance of the patient to the institution as free as possible from the disagreeable and often extremely exciting or depressing effect which the insane experience on finding themselves in a "Lunatic Asylum."

THE Research and Curative Departments, being closely allied in their objects, should be practically one in organization and management. The official head should be a board consisting of an Alienist, a Physiologist, a Pathologist and a Psychologist, each being of the highest grade of qualification in his branch. The Physiologist, Pathologist and Psychologist should be devoted to the Research service, which should be equipped with laboratories and every other necessary device for the most accurate work. Subordinate officers as field-workers, should be supplied in such kind and manner as to reach every requirement.

Departments Under Specialists

The Alienist should have the supervision of the Curative branch, in which the remedial measures directed by the Research service are practically applied. The equipment of this department should embrace every recognized means or appliance for curing the insane not otherwise available.

The residential buildings of these departments should be cottages adapted to family life, so located and constructed that there is the least possible contact of the inmates with each other, and their closest possible oversight by attendants. The object of this arrangement is to have the insane, in the beginning of their treatment, under the immediate influence of a sound rather than an unsound mind.

The resident head of a family in the cottage should, as far as possible, be of the same nationality or occupation as the patient, in order that the former may be able more readily to obtain the confidence of the latter, and thus unconsciously exert a controlling power over him.

The plan of a Research and Curative department, above sketched, to be added as an integral part of the great State Asylums is, of course, susceptible of important modifications, but the outline given will serve to illustrate their peculiar features.

In practical operation in an Asylum, a patient would enter the institution and might be under

observation and treatment for a considerable period without being aware that he was in a "Lunatic Asylum." When the record of his life is completed, his physical condition understood, and the precise origin, progress and trend of his mental derangement ascertained he would be transferred from the Research Department to his proper place in the greater institution. He might be discharged as not insane, or be assigned to a specific form of treatment in the Curative branch, or to a trade, to the farm, the Industries, or to the Custodial division, or to the Hospital. Whatever was the decision as to his destination, there would be the absolute certainty that the State had exhausted its resources in its efforts to relieve him of his disability and restore him to his family as promptly as his condition would permit.

No Real Attempt to Cure the Insane

WE can but conclude that, in the light of the modern physiological and psychological sciences, we are not making proper progress in curing the insane in public care. Custody has been the policy of the State, and as a result the asylums are always overcrowded and there is a constant demand upon Legislatures for large appropriations to increase the capacity of existing institutions and to establish others.

The conclusion which my observations forcibly impressed was that thousands of persons languish in Asylums for the insane, suffering from curable forms of neuroses involving disturbance, or, more accurately, derangement of the functions of some brain-cells. They have never been subjected to the exhaustive study by scientific experts now proposed, and, consequently, have never received adequate treatment.

It is a pertinent question for the most serious consideration of those who control the policy of the State: Might not the per cent. of "discharged as cured" from our Asylums be raised from twenty-five or thirty-three per cent. to eighty or ninety per cent., if all the resources of science, art, and humanity were brought into requisition immediately on admission of each person legally committed as insane?

It may be alleged that the installation of Research and Curative departments in our great State Asylums would be so expensive as to be prohibitive. That objection raises another question, viz., Would it not be more economical to cure, by the proposed organization, even fifty per cent. of the admitted patients, than to maintain them fifteen years, the allotted lifetime of the insane in Asylums?

But while we are satisfied of the economy of the reform proposed, there is a question of far

higher import than that of economy involved in the proposed change of policy in the treatment of the insane by the State. It is the obligation of the State to restore to health and activity, in the briefest possible time, citizens who become its wards by the accidents of disease, which unfit them for life in the family and community.

Dr. Hering, Secretary of the Commission in Lunacy of Maryland, already referred to, makes the following statement as the result of his experience in visiting institutions for the insane:

"There are approximately one hundred and fifty thousand insane people in the United States, a large proportion of whom might be cured and become useful citizens, if the State Legislatures would appropriate sufficient money."

XVI

Cure the Curable

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Cure the Curable

THE curable insane are those whose brain-cells are not destroyed by injury or disease, but are only temporarily disturbed in their function. Thus, the cells may absorb from the blood a substance which while it remains within them changes their action as in alcoholic intoxication, but when the poison is removed the cells resume their normal functions.

Curable Cases

Considering the extreme susceptibility of the brain-cells to impressions from without the body, through the special senses, and from within by the absorption of deleterious waste matters (auto-intoxication), it is apparent that the number of persons suffering from temporary mental derangement, requiring custodial care, must be very large, and greatly in excess of those suffering from destruction of the same cells by organic diseases. This conclusion is sustained by

a comparison of the functional and organic diseases of other organs, in which the former always largely predominate.

We may, therefore, justly estimate the curable insane, or those who at the outset of their mental aberrations suffer only from simple disturbances of brain-cell functions, as much more numerous than those suffering from destructive organic diseases. Even in the long-established State institutions for the insane it has been estimated that half of the inmates have no organic disease of the brain.

Why Are Not More Cured?

IN the Psychopathic Hospitals, where persons are admitted for observation, their conduct leading to the suspicion that they are insane, the number found to be suffering from temporary mental derangement, which may be relieved by simple measures, is so large, compared with those whose delusions, illusions or hallucinations are permanent, as to confirm the belief that the curable insane are greatly in excess of the incurable, on first admission to asylums.

If, then, a large proportion of the insane suffer only from functional disturbances of brain-cells in the incipient stage of their special forms of mental aberration, the question acutely

arises, Why is not the rate of cure greatly in excess of the twenty-five to thirty-three per cent. which is the standard of success in public institutions devoted to their care and treatment?

The science and art of healing during the last half-century has made great advances in reducing the mortality of diseases in all of the departments of practice—medicine, surgery, obstetrics, gynecology, therapeutics; but in the cure of the insane psychiatry has made no corresponding advance during that period.

Dr. Pliny Earle made an elaborate study of the statistics of asylums and from them drew the conclusion that the final results of the efforts to cure the insane were unfavorable, owing chiefly to the relapses which occur in those discharged as cured. The result of his researches was to revive in the minds of many the old belief, "Once insane always insane." How far that author's opinion has influenced the treatment of the insane in public institutions cannot be determined, but as his statistics were the results of treatment in a comparatively primitive period, they do not illustrate the resources of modern medical science and art.

Assuming, therefore, that the insane, suffering only from functional derangement of brain-cells, may be cured, as are the functional derangements of other organs. by removing the disturbing cause and reducing their functional

activity to a minimum until their integrity is restored, it will be interesting and instructive to inquire as to the susceptibility of the insane to curative measures.

It is noticeable that in every case the relief was due primarily to satisfying a desire or to divertion therefrom.

XVII

Use the Usable

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Use the Usable

FEATURE of the Asylum life of the insane, which has a depressing effect upon their physical health and injuriously concentrates their thoughts upon the special objects of their mental disturbance, is idleness. A most painful impression is made upon the visitor as he passes from ward to ward, to witness the restlessness and irritability of vast numbers of stalwart men and women, due largely to the absence of vigorous labor in the open air—labor to which they may have long been accustomed. The cause of this idleness is due chiefly to the unwillingness of the insane to labor, owing to their grievance at being adjudged insane and confined.

Evil Effects of Idleness

Refusal to labor can be overcome only by compulsion or a promise of reward. The reward may be money or favors in the form of privileges. The value of work as a curative

measure is greatly enhanced when the laborer is rewarded and he performs his task voluntarily. On this account the Superintendents of English Asylums are allowed a reserved fund with which to pay patients who labor.

On the part of the management the excuse for not securing more work from the insane is, first, and generally, that it requires so much time and effort to care for the laborers, while employed, their labor is too expensive; and second, that the task itself is too often of such little money value as to discourage efforts to make large numbers of the more demented class work.

While these objections to "wasting the time" of attendants in efforts to make the insane work have apparently much weight, as an economic feature of the management, we must not lose sight of the fact that a well-planned system of toil is the most successful curative measure for the physically able insane yet devised. Fortunately the State Asylums and Hospitals, with their ample farm and garden lands, furnish the necessary opportunity for developing industries adapted to the physical and mental peculiarities of every inmate capable of doing any kind of work.

The following cases illustrate interesting features of the usefulness of the insane:

A Superintendent was impressed with the in-

fluence which an inmate of a ward devoted to a very disturbed class exercised over his associates. Though he was an incorrigible patient as regards obeying attendants, being always the leader of outbreaks of the more violent, the Superintendent determined to place him in charge of the ward and thus utilize his peculiar power over the disturbed patients. On making this proposal to him he refused to assume the care of such an unruly "lot of insane devils," as he called them, unless he was paid one million dollars a day. The Superintendent accepted his offer and he entered upon his duties, and from that time this ward was the most orderly in the Asylum. The new attendant went regularly to the office daily and received a check for the stipulated amount. If for any reason he did not receive it he notified the Superintendent that he should "knock off work" until he was paid.

One of the best laborers on an asylum farm, especially in the cultivation of corn and potatoes, was an elderly farmer who was so demented that when he reached the end of a row he would continue on in a straight line searching for the plants, even climbing over neighboring fences for that purpose. He always had a companion at his work who would turn him about at the end of each row.

A feature of a County Asylum was a stalwart farmer working a well-groomed mule. On inquiry I learned that he had been a most ungovernable inmate of a State Asylum and was returned to the County as an incorrigible. He seldom spoke without using the word "mule." The Keeper, a shrewd, practical man, was impressed with the extreme restlessness of the man and his frequent use of the word "mule," which seemed to be the suggestion of his subconscious mind. Adopting quite unconsicously the method of psycho-analysis he determined to learn the occasion of his using that word as a possible clew to the cause of his mental disturbance. On visiting the home of the farmer the Keeper learned that he had gradually developed a fondness for an old mule and finally would do no other work than drive this animal about the farm and neighborhood; whatever work could be done by the mule and the farmer together—ploughing, carting—was always well and thoroughly done. His devotion to the mule finally became such a nuisance that he was committed to an asylum as a hopeless dement.

The Keeper had the mule transferred to the County Farm and placed in charge of the farmer. The effect was immediate; he spoke to the mule in affectionate terms and from that time was as docile as a child. He became one of the most useful men in the colony and never manifested any irritability, but was continually planning work which he and the mule could do.

These cases suggest Freud's "Psycho-analysis," which Max Eastman says means analysis of the soul, or mind. The theory is that countless numbers of diseases that we call nervous, or mental, and countless others that we do not name, are caused by desires which dwell in our minds without our knowing they are there. His contention is that if the patient is made clearly aware of these desires their morbid effects will disappear, and it is equally true that if these desires are satisfied they will cease to disturb the mind. Freud thinks a large part of the sickness and trouble in the world is caused by desires which we have refused to think about, but which live their life of imagination below the surface of our minds and act through it whether we will or no. Most of these trouble-making desires are related to the sex life—first, because sex desires are so strong, and, second, because they are so urgently repressed by culture, conscience and convention.

The Delusion of a Physician

CONVERSING with a physician in a large practice, he stated that he had long labored under this disadvantage in his treatment of his patients, that if he touched the medicine which he prescribed it had the effect on the sick of morphine. When I expressed a doubt as to the power of his touch to change the therapeutical effect of a drug, he became excited and declared with an oath that

ever since he was poisoned by morphine his touch transmuted drugs into morphine. On diverting his attention to other professional subjects he proved to be a most instructive conversationalist, and I learned that he ranked with the first members of his profession as a practitioner, but he had to administer medicines by prescription.

The failure of asylum officers to secure productive labor from the insane is due largely to the State's policy of regarding and managing these institutions as custodial rather than curative institutions. The custodial policy, which tends to treat the inmates *en masse,* is antagonistic to the curative, which individualizes the patients and applies its remedies to the special peculiarities of each. Success in the management of the former is estimated by the number in care and the creature comforts supplied, while the latter estimates its success by the number discharged cured and improved, and the economies effected by the productive labor of the inmates.

It is impossible to estimate the gain to the State, not only of productive labor in its institutions for the insane, but in the recovery and discharge of self-supporting inmates cured by labor, if a branch of the service of each were thoroughly equipped for, and devoted to, the cure of the insane by some form of mental diversion and physical labor.

Dr. Hering, Secretary of the Commission in Lunacy of the State of Maryland, says:

"I contend that nine hundred and ninety-nine out of every one thousand patients can be so improved in condition by proper treatment and proper environment as to make them in every case partially self-supporting and in a great many cases entirely self-supporting. Not only can they be made self-supporting, but self-careing."

XVIII

Voices from the Asylums

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Voices From the Asylums

IT is not often that we listen or give credence to a voice from the asylum wards. But in the following statement a lady of great intelligence gave her experience in an asylum when Mechanical Restraint was the prevailing method of controlling the disturbed or violent patients:

Views of an Inmate

"The whole system of treating the insane in asylums is wrong and makes more cases chronic than it cures. I am a school teacher by profession, trained from childhood in self-care, especially in personal cleanliness, dress and manners. I was brought here under pretense that I was going to a sanitarium to convalesce after a long spell of sickness. On arriving I was escorted to the door by my nurse, a refined young woman, who, I understood, was to be my companion while I remained in the sanitarium. At the door we were met by a man who took me

alone to an office where a clerk made a record of some facts of my life. Then a nurse was called, a coarse Irish woman, who led the way to a hall where there were forty insane women. I inquired for the nurse who came with me and was to attend me in the sanitarium. "Sanitarium!' said my guide. 'Eh! So they deceived you by calling a lunatic asylum a sanitarium! Your friend skipped at the door, as do many who bring lunas here.'

"I was ushered into a room where there was a a large number of women, who terrified me by their insane acts, and was assigned to a small room whose only furniture was a low bed with dingy, soiled clothing. I was ordered to undress and prepare for a bath. I told the nurse that I had had a bath that morning, but she said, 'That makes no difference,' and I went with her to the bath-room, which was a common receptacle with a repulsive looking tub from which I shrank.

"Under a threat that I would be forcibly put in the tub if I resisted, I complied, but begged that I be allowed to use my own toilet articles, which I had brought. This request was refused, and I was forcibly held while towels were used which sickened me at the very sight. When the nurse approached me with a filthy hair-brush and comb, I again begged to be allowed to use my own, which were in my bag, but the nurse

made no reply and attempted to comb my hair, which I resisted by placing my hands on my head. She called an assistant, a very strong Irish woman, who pinioned my arms in her grasp, while the nurse applied the comb and brush with such harshness that I cried with pain.

"This part of my toilet over, the nurse brought a ward dress and directed me to put it on. Again I remonstrated and asked the privilege of wearing my own dress, but it was refused, and I was forcibly assisted in putting on the old and ill-fitting garments.

The Effect of a Rude Reception

I WAS finally taken to my room perfectly exhausted by my excitement, excessively uncomfortable in my shabby dress, terrified by the screams of patients, and deeply resentful because of the deceitful method which my friends had pursued in securing my admission to the asylum. I passed a horrible night, sometimes screaming to relieve the nervous tension which I suffered. For this act the night watch threatened to put me in the 'Seclusion Room,' which so alarmed me that I did not dare to speak, but sought relief by walking the floor and wringing my hands.

"When the 'rising-bell' rang I was so exhausted that I did not feel able to stand, and sat

on the side of the cot, but the attendant ordered me to dress and go out on the hall. I finally succeeded in getting into the filthy, striped ward dress, and the feeling crept over me that I was a prisoner for life. In the hall I was confronted by a dozen insane women, who gathered about and stared at me as if I were a wild beast. With these poor creatures I had to take my breakfast, for which I had but little relish in their presence.

"When the physician made his morning visit I attempted to speak with him, but the attendant explained my case to him, placing great stress on my resistance in the bath and my disturbance of the ward at night. On my attempting to explain he listened for a moment with a bored look, then waved me away and passed on without a word of advice. I made several efforts to speak with him afterwards, but with no better success, and now it is more than a year since my admission, and no one has examined me to determine my condition or to give me advice."

She continued her narrative at much greater length, and then gave her views as to the proper treatment of the insane, which were, in substance, as follows:

"If I had met at the door of the asylum an intelligent lady, who would have taken me to a private room, and there in a sympathetic man-

ner explained that this institution was a sanitarium for nervous people; that I would probably soon recover my health; that it was necessary to have very strict rules, where there were so many nervous persons; that she wished me to take a bath before retiring, as that was required; and if she had given me my toilet articles, and then had given me a quiet, decently furnished room, I should have had all my fears removed and should have passed a comfortable night.

"In the morning the same lady, or one equally intelligent and sympathetic, should have taken me to a private table, then for a walk or drive, meanwhile inquiring into the peculiarities of my case and encouraging me with the hope of early recovery. On the same morning the physician should have thoroughly but sympathetically examined me in private, determined my course of treatment, and assured me of my early recovery, or, at least, have said some kind and encouraging word. But from the day I entered until the present I have not had five minutes' continuous conversation with him. Though a Seminary graduate, second in my class, a teacher for ten years, and an author, my only companionship for a year has been that of these poor women, and we have nothing in common but our miseries."

Perhaps these statements are exaggerated,

but there is sufficient truth to make them worthy of record. The method of having ordinary employees receive patients who are always intensely sensitive and usually greatly excited on being taken to an asylum for the insane, is liable to aggravate their mental disturbance unnecessarily. The cold and repulsive treatment which they receive from attendants on admission creates a prejudice from which the patient never recovers. The first introduction to a hall filled with the insane; the want of genial companionship; the neglect of the physician, as described by this lady, are incidents in the life of the insane in public care which ought to be remedied.

"Treat Me Like a Man"

"*TREAT me like a man and I will treat you like a man; treat me like a brute and I will treat you like a brute.*" This was the challenge of an old man who had been admitted to an asylum as insane. No attention was given to what was regarded as the conceit of a diseased brain and he was assigned to a hall with inmates of the disturbed class. It naturally happened that the old man soon took offense at his treatment by the attendant and he resented it by destroying everything possible in his room. For these acts he was subjected to various forms of restrictive treatment, which he as persistently resented. His violence became so

uncontrollable and his destructive habit so dangerous that he was "the terror" of two asylums which successively had the care of him.

One of the younger members of the resident staff of physicians was passing the window of the room where the old man had long been confined and heard the familiar challenge, "Treat me like a man and I will treat you like a man; treat me like a brute and I will treat you like a brute." The young physician was struck as never before with the propriety of this pathetic appeal and the necessity of accepting the challenge. He sought the Superintendent and proposed to take the patient under his personal charge and give him the benefit of a trial of his pledge. The Superintendent at first refused, but consented when the physician promised to be personally responsible for the damage which the patient might commit.

Going to the patient's room the physician accosted him with a slap on the shoulder and the hearty greeting, "See here, my friend, come with me to my rooms, for I intend to have you take charge of them and assist me." With a sob the patient grasped the physician's hand and said, "That is the first kind word that has been spoken to me in five years." He proved true to his word and so faithfully performed all the duties assigned to him that he was finally placed in charge of gangs of working patients. In one

instance he superintended the pruning of a large orchard by inmates, each armed with an axe.

He was finally discharged and supported himself comfortably for several years, always maintaining that he would at all times have faithfully fulfilled his promise to treat any officer or attendant of the asylum as a man if he had been treated as a man.

How different would have been the history of this man if he had been properly examined, on his admission to the asylum, and if an effort had been made to test his demand at once, instead of waiting five years!

XIX

State Care of the Insane

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State Care of the Insane

THE deplorable condition of the insane in county care, revealed on my first inspection in 1882, and the excellent care which the same class was receiving in State Asylums, convinced me that I could do no service more immediately useful and of more lasting benefit to the insane than to secure their removal to the State institutions and close the alms-houses forever to their admission. I had no conception of the opposition which a proposition so manifestly just and feasible would meet, nor of the sources of that opposition.

State Instead of County Care

Accordingly, in 1883, I drew a bill providing for the gradual transfer of the insane from the alms-houses to the State Asylums, the object being to remove at first, and immediately, the more disturbed inmates who were treated by

means of the most severe forms of mechanical restraint. The measure was first submitted to the county officials by whom it was received with general opposition as a method, concocted by the State Asylum Managers, of depriving the counties of their rightful privileges. The prejudice against the State asylums for the inroads they already had made upon the insane population formerly in county "poor-houses," was intense, and it was soon evident that only opposition from that source could be expected.

The proposed reform was discussed with the Managers of the State Asylums as opportunity offered, but was not generally well received on account of the opposition which it was believed the counties would make to any further encroachments upon the poor-house population, and the undesirability of adding chronic disturbed insane to their number.

The subject was also discussed with the members of the State Board of Charities, which then had visitatorial supervision of all of the insane in custody. The older members opposed any such change and advocated the adoption of measures which would improve the care of the insane by the counties, the principal change being the creation of County Insane Asylums. That plan was adopted by some counties, and under the closer supervision of the State Board of Charities considerable improvement was ef-

fected. But at the best their management was far below the standard established by the State institutions and emphasized the necessity of finally placing all of the insane in the care of the State.

How State Care Was Secured

IMPRESSED with the urgency of this reform I prepared another bill which would more immediately and totally remove the insane from the alms-houses. Having failed to secure the co-operation of any adequate number of persons, or organizations capable of securing the passage by the Legislature of a measure destined to meet with the most powerful opposition, I decided to appeal to the State Charities Aid Association, a voluntary organization devoted to the improvement of the State Charities. On submitting the measure to Miss Louisa Lee Schuyler, the founder of the Association, and an uncompromising advocate of reform of these institutions, she declined at first to have the Association undertake a work of such magnitude, but several months later she informed me that if the bill was approved by the President of the Association, Prof. Theodore W. Dwight, she would advise undertaking its passage by the Legislature. The bill was submitted to Prof. Dwight, who proposed some changes in the phraseology, but

decidedly approved the effort to secure the reform which the measure would effect.

Preparatory to the introduction of the bill into the Legislature, I deemed it very important to secure the cooperation of the President of the State Board of Charities, Hon. Oscar Craig, of Rochester, a lawyer of a thoroughly judicial mind, of profound convictions of justice and righteousness and of a pleasing but impressive personality. As he was unfamiliar with the condition of the insane in the County Asylums, having visited with me in committee only the insane in the State institutions, a resolution was passed by the State Board of Charities, on my suggestion, requesting the President to visit the County Asylums and report on their condition. Accordingly Mr. Craig visited these Asylums in the summer of 1888 and as a result earnestly approved a measure which would effect the transfer of the insane from County to State care.

The amended bill was introduced into the Legislature of 1889 and its passage urged with the powerful forces at the command of the State Charities Aid Association. Conspicuous among its advocates was President Craig, representing the State Board of Charities, who was actuated by personal knowledge of the conditions of the insane in county care. The opposition was chiefly from the adherents of the alms-houses,

represented by local political organizations. The bill became a law in 1889, thus closing forever the "Poor-Houses" of the State against the admission of the insane poor.

Estimating the importance of the change in the care of the insane effected by this measure in the light of nearly a quarter of a century's experience, the "State-Care Act" of New York takes its place with the most advanced and salutary reforms of that period. Other States have followed the example of New York, and the "Poor-House" as a residence of the insane is destined to be only a recorded fact in history.

A Proper Commission in Lunacy

AT the close of my term of service as State Commissioner in Lunacy, in 1888, the total number of insane in the various institutions was about 20,000. The system of lunacy administration had as yet no properly organized method, but had been the accidental growth of years, from the old-time custody in the jail or alms-house to the care and treatment of the State Asylum. Each stage of progress was, however, marked by a popular agitation favorable to the more humane treatment of the insane. It was apparent from my experience that the population of insane had reached a limit that rendered it necessary for adequate supervision by

the State, and that there should be a properly constituted Commission, created with adequate visitatorial and supervisory powers.

Accordingly, in 1888, I prepared a bill creating a State Commission in Lunacy. The personnel of the Commission consisted of a Medical member, a Legal member and a Business member. These three members represented the three important interests of the institutions for the insane. While the Commission had not the power of direct administration of the affairs of the asylums, which was continued in local boards, it had such advisory powers and supervision of details as would enable it to exercise a controlling influence upon the management. The bill passed the Legislature somewhat in advance of the State-Care Act, as was intended, in order that when the latter went into effect, there would be a competent authority prepared to organize and direct the changed policy of the State.

The Commission in Lunacy has fully met the purposes of its establishment. The personnel of the Commission has been judiciously selected by the State Executives for nearly a quarter of a century, and during that period there has been scarcely a criticism of its acts. Upon the members of the Commission first appointed the greatest responsibility rested, and it proved fortunate for the State that its President was

Dr. Carlos F. Macdonald, a man eminent in his profession and of an exceptionally large and varied experience in the management of the State Asylums. Under the fostering care of the Commission, the insane of the State of New York are receiving the highest grade of humane care. In all that pertains to creature comforts —food, clothing, housing, freedom from cruel forms of restraint—the equipment and management of the State Hospitals excel.

THERE was a feature in the practical application of these two Legislative acts that might have accomplished more desirable results had it been adopted and enforced on the entrance of the former occupants of the alms-houses into the State Hospitals. One of the objections of the managers of these Hospitals to the transfer of the insane of the alms-houses was that they were a chronic class of low order and had never had any discipline. Hence they would tend to disturb the management by their violence and degrade the service by their physical and mental inferiority. The objection was well taken and raised an important question as to the best method of avoiding such an undesirable result.

Another Reform Much Needed

It was suggested that as these Hospitals had under their control large acreages of farm-

lands it would be practicable to segregate them, with the chronic insane already in the Hospital, in colonies, supplied with simple and inexpensive cottages where the inmates would live in families and be trained to useful labor. This arrangement would have relieved the existing buildings of a considerable population and admitted of larger opportunities and greater facilities for the treatment of recently admitted cases. Unfortunately the managers, with few exceptions, proceeded to build new structures in immediate contact with the existing buildings, thus reducing the entire population to the common level of a custodial institution and impairing its more important function of curing the insane.

Training Schools for Nurses

HAVING, in 1872, assisted in establishing the first "Training School for Nurses," in Bellevue Hospital, New York, and having experienced the remarkable reform which they made in the care of the sick in my own wards, the first impressions I received on visiting the wards of the asylums for the insane were unfavorable, owing to the absence of the uniformed attendant or nurse. My proposition to organize Training Schools for the education of attendants in asylums was not well received by either medical officers or attendants.

At length, however, it was discovered that one of the medical staff of the Buffalo Asylum, Dr. William D. Granger, was giving to the attendants of that institution instruction in the art of nursing and had prepared a manual on that subject. His interest in the organization of a school for the training of attendants was so great that it was not difficult to obtain the consent of the Superintendent, Dr. Judson B. Andrews, and through him the approval of the Managers, to organize a course of instruction for the attendants. The plan of organization was that of the Training Schools of the general hospitals, with a term of two years, and graduation with a certificate or diploma. The scheme was carried out in all of its details, and thus the Training School for Attendants in institutions for the insane, now found in every asylum throughout the country, was initiated in the Buffalo Asylum for the Insane.

PART FOUR

THE LESSON APPLIED TO THE IDIOT, FEEBLE-MINDED AND CRIMINAL

XX

Extend Curative Methods to All the Dependent Classes

XX

Extend Curative Methods to All the Dependent Classes

THE lessons which the preceding illustrations of the anatomy and physiology of the nervous system teach have a wide application to our treatment of the dependent classes. We learn that the mental attributes of every person depend ultimately upon the physical state of the nerve-cell, over which we have almost absolute control, both in its individual and collective capacity. If its texture is feeble from heredity or disease, we may make it strong by nutrition, exercise, pure air, and medication; if it is undeveloped, we can develop it by applying its appropriate stimulus and suitable nourishment; if it is unduly developed and hence over-active, we can reduce it to a rudimentary and inactive state by removing every form of stimulant and reducing its nutrition; where neither the regulation of the stimu-

The Lesson Repeated

lant nor nutrition accomplishes our purpose, we can rely upon specific remedies.

The logical and inevitable conclusion to be drawn is that, if we thoroughly understood the exact function and the functional relations of all the cells of the nervous system, we could, beginning with the child, control in a large measure the development of character, and in the adult modify existing attributes by stimulation of one class of nerve-cells and the repression of another to any extent that we desired. There is no doubt that the marked changes which we often witness in the mental attributes of the sane and the insane, temporary and permanent, are due to temporary conditions affecting the functional activity of nerve-centres. Nothing can be more thoroughly practical than the application of the proper remedial measures by which the equilibrium of these centres is secured.

The superficial and mere surface knowledge of the inmates of institutions, on the part of the officers, not only results in ignorance of the possibilities of improvement of large numbers of patients, but begets incredulity as to the capacity of an entire class to be improved by any method of treatment. It is equally true that the medical officers, attendants and managers of our charitable and correctional institutions have little, and too often, no faith in the capac-

ity of the vast majority of the mentally defective class to be taught, the mentally diseased class to be cured, or the criminal class to be reformed. And this want of faith is due to ignorance of the capacities of the human brain to be infinitely modified by expert care.

THE result is that no State institution, devoted to the care and treatment of these classes, is so organized and conducted as to be thoroughly curative in its methods. They are, in fact, custodial. In their annual reports they never call special attention to the increasingly large percentage successfully taught, cured, reformed, and discharged. They do not appear before the Legislatures asking appropriations for better facilities for teaching the idiot, curing the insane, and reforming the criminal, using as an argument the seventy-five per cent. taught, cured, and reformed the past year, and promising, with improved facilities, to raise the percentage to ninety-five per cent. On the contrary, the constant demand upon the State is for more buildings to accommodate the ever-increasing number to be added to the fixed population of these institutions.

State Institutions Not Thoroughly Curative

XXI

Teach the Idiot and Feeble-Minded Self-Care and Self-Support

XXI

Teach the Idiot and Feeble-Minded Self-Care and Self-Support

WHAT shall we do with the idiot and the feeble-minded? Teach them self-care and self-support. But can they be taught? The following incident is an answer to that question. On a bright summer day in the early sixties I took advantage of a leisure hour or two in Syracuse to visit that anomaly among the charitable institutions of the State of New York, viz., a school for the instruction of idiots. The very purpose of the institution—*the education of idiots*—seemed then to be an unanswerable argument against its existence. Its founder, Dr. Hervey B. Wilbur, had encountered great opposition on this very ground. No one believed it possible to teach idiots sufficiently to make the creation of an institution for that purpose justifiable by the Legislature. The institution finally took the apparently more appropriate

Educating Idiots

title, "The Custodial Asylum for Feeble-Minded."

While crossing the lawn, in my approach to the asylum, I casually noticed a group of young men engaged in "making hay." Some were mowing, others were spreading the cut grass, but all were actively and intelligently at work. On entering the administrative building I found Dr. Wilbur employed with his daily duties. I introduced myself and explained that I was desirous of obtaining, by personal observation, information as to the success of the institution in teaching idiots. The doctor's interest in my visit was marked and he became very communicative in regard to his work. We examined every part of the asylum and saw all of the inmates in their several departments and classes. It would be impossible to conceive of an apparently more hopeless and repulsive task than teaching many of those mere vegetating objects. Incidentally I suggested the impossibility of educating these children to become active and intelligent workers like the young men making hay on the lawn.

"Why, my dear sir," he replied, "those young men are all idiots, but the attendant, whom I presume you did not recognize from the others; some of them were as hopeless as the worst you have seen in the Asylum."

I could not conceal my skepticism, and re-

marked that I regarded it as impossible to make a first impression on many of the inmates.

"That has been the mistake of the world in its treatment of idiots," he replied, "but in these later years we have learned how to teach the first lesson, and on that first lesson the whole system of educating the idiot depends. Come into the class room and I will give you a demonstration of the first lesson and its effects and results."

The First Lesson

WE went accordingly into the room of the lowest class of inmates, some of whom had been admitted so recently that the doctor knew nothing of their physical or mental condition. He requested me to choose one of the latter class, who was unknown to him, for a first lesson. I selected a boy who sat on the floor, drooling from his open mouth and swaying his body, but who seemed insensible to anything about him, and, as the attendant assured me, had to have the food placed in his mouth at his meals.

The doctor took a dumb-bell, and placing it on the floor by the side of the boy, fixed his hand on the shaft with the fingers closely around it. Then, taking another dumb-bell, and standing in front of the boy, the doctor raised his instrument high in the air and deliberately struck the dumb-bell on which the boy's

hand was placed. The boy was startled by the concussion, but made no other sign of recognition of the blow. The doctor repeated the act twice more with the same result.

"This is the first lesson," the doctor remarked, "and he is a very promising student, with great possibilities. Now let me show you a boy of the same grade who has been under instruction for several months with two such lessons daily."

The second boy was of the type of the first, and on the trial he removed his hand from the dumb-bell, when it was struck, and raised his eyes from the floor, as if to see from whence the blow came. A third boy had been under treatment for a still longer period; he watched the doctor's movements, and when he saw the blow descending, raised his hand and laughed. A fourth boy was tested, who was now in one of the graded classes. When the doctor took the dumb-bell, and handed the boy another, the boy rushed at the doctor and for several minutes there was a clash of weapons, the boy showing dexterity and immense enjoyment of the contest.

In the discussion of his method of teaching the feeble-minded Dr. Wilbur laid great stress upon the significance of "That first lesson." His explanation was to the effect that the idiot had a dormant nervous system, and the first

step in the process of educating him must necessarily be to arouse the brain to activity; that the best method of making a first impression was through the sense of feeling; and that the shock communicated by a metallic substance through the sensitive surface of the hand was the most effective method. His argument was this: If one special sense of the nervous system can be aroused to activity, other special senses will be excited secondarily, and, finally, the whole brain will become receptive of external impressions and the higher mental functions will be gradually developed.

Interpretation of Dr. Wilbur's Method

IN the light of our present knowledge of the minute anatomy of the nervous system and the physiological functions of its constituent parts, Dr. Wilbur's method of teaching the idiot was founded on strictly scientific principles. Undoubtedly he did not understand the full significance of his own reasoning, for our knowledge of the structure or minute anatomy of the nervous system at that period was little more than its gross appearances. We had learned that its elements consisted of gray and white matter; that the gray matter was composed of cells and the white matter of fibres. The physiology of that period taught us little more than

that the cells generated the nervous force, or energy, and that the fibres, or nerves, conveyed impressions, or impulses, to and from the cells.

It quite naturally occurred to a thoughtful mind like Wilbur's that the brain of the idiot was in an inert, or dormant state, owing to the absence of a stimulus sufficiently powerful to arouse it to activity. If that stimulus could be properly applied through one of the special senses—seeing, hearing, feeling, smelling, tasting—the idiot could be taught like any other child. He chose the sense of feeling with the remarkable results that followed. Had he known the full significance of that first lesson, in the light of modern scientific discoveries of the intimate structure and functions of the cells of the brain, its immense number of so-called centres, and their relations, his work would have been invested with a new interest, and there would have been far greater precision in its execution.

Stimulation by Electricity

ALONG this line of inquiry as to available methods of stimulating to functional activity is the proposed "Electrified Schoolroom to Brighten Dull Pupils," of Nikola Tesla. It is well known that eminent experimental psychologists believe that the high-frequency current intensifies cerebration; that it is a mental stimulant like alcohol, but in-

stead of being harmful to the brain-cells as is alcohol, electricity is harmless and confers lasting benefits. It is stated that Mr. Tesla's attention was attracted to this subject by noticing the effect of electricity on one of his assistants in making certain high-frequency tests. This assistant was very stupid in carrying out instructions concerning laboratory adjustments. The laboratory was equipped with a coil generating high voltage currents, and after a time Mr. Tesla noticed that the man became brighter and did his work better, but supposed the change was due to the assistant's learning his duties more thoroughly. This did not prove to be the proper explanation. On observing the actions of the man more closely he concluded that his assistant's increased aptness and alertness were due to a much deeper cause than mere experience; that the elements of "mental life"—the brain cells—had been stimulated to greater functional activity.

This new, novel, and practical method of awakening to activity dormant brain cells has been subjected to trial on a large scale in Stockholm, Sweden. Two sets of fifty children each, averaging the same age and physical condition, were placed in separate classrooms exactly alike except for the concealed wires in one of the rooms. The regular school work was pursued and the test

lasted for six months. The result recorded was as follows: The children in the magnetized room increased in stature two and a half inches; those in the unmagnetized room increased one and one-fourth inches; the former also showed an increase in weight and physical development greater than the latter. More remarkable was the difference between the mental development of the two classes, viz.: Those exposed to the electric waves averaged ninety-two per cent. in their school work, compared with an average of seventy-two per cent. of the children in the other room; fifteen pupils in the electrified room were marked 100, and nine in the other class. It is stated in the report that the electrified children appeared generally more active and less subject to fatigue than those not electrified, and that the teachers experienced a quickening of the faculties and an increase of endurance.

The method of applying the electricity was thus stated: Carefully insulated wires were inserted in the walls of the experimenting classroom and the test was carried on without the knowledge of either the teacher or the pupils; the air of the room was completely saturated with incalculable millions of infinitesimal electric waves vibrating at a frequency so great as to be unimaginable and capable of measurement only by a most delicate voltmeter.

XXII

The Treatment of the Criminal

XXII

The Treatment of the Criminal

WHAT shall we do with the criminal? Reform him—form him anew—is the answer of modern physiology. The problem is the same as that of curing the insane, viz., the reforming or readjusting of a deranged mechanism. Certain nerve-centres have been overstimulated and thus enlarged until their functional activity has controlled the thoughts, purposes and acts of the individual precisely as in the case of the insane. The cure of the insane and the reform of the criminal are, therefore, closely allied problems, the solution of which depends upon our ability, in either case, to repress the abnormal activity of nerve-centres, which incite to criminal acts, and arouse to activity dormant nerve-centres which counteract or inhibit the action of the former. The reform of the criminal, the cure of the insane and idiot are purely physiological ques-

Reform the Criminal

tions, and the policy of the State in its care and treatment of these classes should be in strict conformity therewith.

The International Prison Congress, at its session at Washington, D. C., in 1910, placed on record the following resolution, which embodies the opinions of the most advanced students of penology, the experience of practical workers in prisons, and a fundamental principle of physiology: "No prisoner, no matter what his age or past record, should be assumed to be incapable of improvement."

From a physiological view-point what are the best methods of re-forming the criminal? Centuries of experience have proven that the punitive method, embodying the Mosaic "eye-for-an-eye" idea of justice, and which must have originated in our animal ancestry, has not an element of reform in its practical details.

PHYSICAL torture by various methods may compel compliance with prison rules, but it only arouses to greater activity the brain-centres which incited to crime. Solitary confinement in a dark cell, and a diet of bread and water enforced upon a person trained from infancy in vice and crime, combined with the cold, harsh, repellant treatment which he daily receives from officers and

The Effect of the Old Method

attendants, excite to intense activity every vicious nerve-centre. When his term of imprisonment expires he leaves the prison, not a reformed, a made-anew man, but a confirmed criminal, prepared by long reflection for a more enlarged field of crime. The punitive method of reforming the criminal is not the physiological method, for instead of repressing the activity of the vicious nerve-centres, and awakening to activity the virtuous nerve-centres, it has a contrary effect, and makes the criminal ten-fold more undesirable as a citizen than before the State attempted his reform.

Socrates was asked how a vicious boy could be reformed, and he replied: "Remove every possible incitement to *vice*, and substitute every possible incitement to *virtue*." The Athenian philosopher formulated his maxim on a sound, physiological basis. The aim of the physiological treatment of the criminal is, first, to secure him sound physical health; and, second, to divert his thoughts from his former evil associates and associations, and to concentrate them upon objects which promote virtuous acts and tend to create a desire and an impulse to lead a better life in the future.

The physiological effect of this treatment is that long active nerve-centres, which incited to vice and crime and dominated the mental operations of the individual, fall into a state of

desuetude, and the long dormant nerve-centres, which incite to virtuous acts, are aroused to activity and assume complete control of the thoughts and acts. The criminal is thus reformed—made anew.

Practically, the prison becomes a school and the term of service depends upon the progress which the inmate has made in the course of training to which he was assigned on entering the institution. The final test would be a parole. Discharge, or graduation, would depend upon the evidence of reform, or, in the language of the schools, upon his having "satisfactorily passed a final examination."

The New Method in Demonstration

THIS view of the treatment of the criminal, as the proper State policy, is no longer a theory but a practical fact, demonstrated in the most luminous manner both in Europe and in the United States. No argument for the policy of reforming the criminal by physiological process can be adduced that has the convincing power of the narrated experience and opinion of those who have instituted the new method.

"I do not wish to know anything about your past life. When you entered the gate of this institution you left your past life behind you; my interest in you is as to your future life." Such

was the answer of Mrs. Johnson, of the Prison for Women, Massachusetts, to the threat of a young woman convict whom the trial Judge at Boston declared to have the most desperate criminal record ever known to that court. When Mrs. Johnson, as Superintendent, made her first visit, as usual alone, to the cell of the recently admitted convict, she was accosted with this remark: "You would not dare to visit me alone if you knew my history; I have been in all the prisons of Ireland and in most in this country, even in Joliet; I have killed my man, too, and you had better take warning."

Mrs. Johnson's reply, "When you entered the gate of this institution you left your past life behind you," was the key-note to her remarkable success in reforming criminal women. Every possible effort was made to effectually close the past life of crime and begin a life of virtue, —that is, to repress and reduce to their rudimentary state the vicious nerve-centres and awaken to the most intense activity possible the virtuous nerve-centres. To this end the institution, with its farm, was supplied with every needed facility for in- and out-door occupation and diversion. No inmate was allowed to be idle, and each was stimulated to the performance of some form of active duty by the agreeable nature of that duty or by the desire to win a higher position in the established grades.

"Truth and Trust" was the symbol of the highest grade, and those who attained to it were privileged to wear a white jacket with the letters "T & T" on the lapel. The desperate criminal, the young Irish woman to whom we have referred, not only attained to the highest grade but returned to her home in Ireland, and seven years after her discharge the priest of the parish wrote Mrs. Johnson: "Sarah is my main reliance in the efforts of our church to redeem the wayward and vicious young people of the parish."

Mrs. Johnson had the most absolute confidence in her ability to reform the most incorrigible criminal woman by the simple method of obliterating the past life of vice and crime by occupation, diversion, truth and trust. To an officer of the State Government, who cautioned her not to be alone with a woman criminal who was homicidal and hopeless as to reform, she replied: "This prison is intended for that very class of convict women; visit it in one year, and if that woman is not in your opinion reformed, I will abandon the institution." He had no confidence in her work and did not visit the prison, but the woman was reformed, was married to a prominent Justice, and became the mother of a family which holds a high social position in a western community.

In passing through the institution, objects for

study and diversion were met on every hand. In one inclosure was a pet horse, in another several sheep and lambs, in a third chickens, in a fourth geese, in a fifth pigs. Each animal had a pet name, given by the inmates, and all were tame, owing to the constant fondling by the patients.

The Old and New in Contrast

CONTRAST two reformatory institutions, in one of which the discipline was by punitive, and in the other by physiological methods. In the first Reformatory three methods of punishment were adopted, according to the grade of offense, viz., confinement in a dark cell with bread and water as a diet; standing at the door of the cell with the hands raised to the full length of the arms and chained in that position during the ordinary working hours; spanking with a large and heavy leather strap.

An examination of a large number of the inmates who had suffered these forms of punishment gave the following results. Those who had been subjected to solitary confinement and a diet of bread and water were generally so well satisfied with their treatment that the Superintendent complained of their unwillingness to return to work even after sixty days' confinement. An examination of these offenders readily ex-

plained, physiologically, what the Superintendent regarded as evidence of their incorrigibility. First, darkness and quiet induced sleep and they enjoyed the undisturbed repose. Second, bread and water as a diet, with complete physical rest, soon destroyed all demand and appetite for food, which resulted in a general deterioration of brain, muscle, heart, and, indeed, of all the organs and tissues. The punished inmate was in the condition of a hibernating animal. When he finally returned to his work he was feeble in health, morose in temper, and far more incorrigible than before his punishment.

The offenders who had to submit to spanking and being chained by the hands raised over the head were hostile towards the officers, threatening and unmanageable. The atmosphere of the entire Reformatory was charged with the hatred and antagonism which existed between the officers and the prisoners. Scarcely a word was spoken to the latter by the former, except in tones of command. Not a smile was seen on the faces of the inmates, but many a contemptuous glance was noticed as an officer passed.

Now let us study the obverse side of this picture, in a Reformatory where the discipline is based on strictly physiological and psychological principles. The Superintendent was asked: "What is your method of disciplining an inmate who throws down his tools and declares he will not work?" The reply was, in substance:

"We regard such an inmate as a mere crank who wishes to make the other men of the class feel his importance. He is at once advised that he may leave his class and go to a certain room —one of a number made purposely for the discipline of offenders—and have a rest. These rooms are one story, of small size, and the roof is made of glass. The furniture is a cot and stool. The room is intensely lighted, owing to the glass ceiling. The rebellious prisoner withdraws from the gang with a defiant air and enters his rest-room. His first impulse is to throw himself on his cot and sleep, but the glare of light is so great that he cannot sleep. He sits upon the stool, but it soon becomes uncomfortable and he takes to walking. He soon tires of that and repeats his efforts to sleep, but again fails owing to the light, and thus the day passes with alternate efforts to secure rest by lying on the cot, sitting on the stool, and walking.

"His meals are regularly served, and they are composed of the richest and most stimulating foods. Such a diet greatly aggravates his restlessness and increases his discomfort. Within three days, as a rule, the most obstinate offender intimates that he would be willing to resume his work, but the Superintendent, who visits him daily, very kindly suggests that as he was so exhausted with his work he had better take a good rest, and adds the humiliating statement that

the fellows in his class had requested that he be not associated with them again as they did not like him."

It is a fact of record in this Reformatory that incorrigible prisoners rarely remained in seclusion more than five days, and, when they returned to work were strong and vigorous, humbled, because they did not prove to be heroes in the opinions of their fellows, and grateful to the officers who had treated them so humanely. The visitor to that Reformatory is surprised at the familiarity between the officers and the prisoners, and at the smiling faces of the latter as the former pass through the different departments, speaking freely with them, calling them by name, and often giving them friendly taps on the shoulders.

Can there be any doubt which of these Reformatories discharged the greater number of permanently reformed criminals? Of a large number interviewed, who had been treated by the punitive method, all condemned it, and none admitted that he was induced to change his vicious habits by his punishments; while those discharged from the Reformatory where rational, humane and physiological methods were practiced, referred to their treatment in terms of gratitude for its effect in changing their vicious tendencies and giving them new and better views of life.

It is gratifying to have on record practical proofs that the humane treatment of criminals should now become the policy of States, not only because of its reformatory tendencies, but also because of its economical results.

"The State of Vermont," says a recent writer, "contains a prison where the inmates are treated upon a novel plan. They are trusted and treated like other human beings; they come and go almost as freely as the members of the jailor's own family; so far as possible, whatever suggests punishment or disgrace is banished; and they are made to feel that their imprisonment is designed to improve them as men, and to restore them to social life not only with full self-respect but with the cordial respect of the community."

The New Method in Vermont

THIS is the physiological idea of re-forming —creating anew,—the brain of a criminal, tersely and accurately stated. The conditions under which he is placed when he enters upon his prison career all tend to repress the vicious nerve-centres and to arouse to healthy activity the virtuous nerve-centres. The success of this treatment has happily had a secondary effect upon the prejudices of the people. The writer adds: "In Montpelier, where this prison stands, the inveterate

prejudice against prisoners has been swept away. So great is the significance of this achievement, denoting as it does a reversal of popular sentiment toward the criminal, that only something approaching a revolution in the prison system itself could have produced it."

It is an interesting fact that in establishing the new or physiological system of treating criminals, the Sheriff of the county in which Montpelier is located was not actuated by the results of scientific study but merely followed the suggestions of his own common sense. There was a State law that provided: "A male prisoner imprisoned in a county jail for being found intoxicated, for a breach of the peace, or for being a tramp, may be required to perform not more than ten hours of manual labor within or without the walls of such county jail each day of such imprisonment, except on Sundays or on legal holidays." The object of this law was to utilize the labor of the prisoners in the interests of the State for economic rather than reformatory purposes.

When the Sheriff was questioned as to his motives in making this larger application of the law to the regeneration of the prisoner, he replied: "I thought of each prisoner as having a parent with the feelings and hopes for him that mine had for me, and reflected that if the prisoners had grown up in the absence of such an influ-

ence, they had been defrauded, and deserved only compassion, not blame, for sinking into jail." This is the new spirit which is to govern in the enforcement of our penal laws.

When the Sheriff began his new method he had no other plan than that of treating the prisoners humanely and awakening in their minds a feeling of trust and hence of respectability. But his first efforts, those of finding employment for them among business men, proved a failure. "No one would have them; the sane and safe business men were not to be taken in like that; they comforted him with assurances that he must fail—the same business men who now send regularly to him for workers when they want help, in preference to picking men up on the street."

The Secret of Success

THE secret of success was revealed when the Sheriff attempted to employ the prisoners on his own farm. He allowed the State fifty cents a day for each, but paid the men nothing. The experiment was a failure, as the prisoners did little and poor work. It is reported that, "One day, much discouraged, the Sheriff called one of the group into his office for a heart-to-heart talk, asking him to say frankly why he did not do more. 'I'm doing just as little as I can and not be punished, and I'm going

to keep on. You would do the same,' answered the man." The Sheriff was impressed with the reply, and, imagining himself in the prisoner's place, recognized the truth of the remark, "You would do the same." A day's work and nothing for it! What incentive had he to labor?

"If you could have seventy-five cents for yourself from your work each day, what would you do?" inquired the Sheriff of a prisoner who failed to do his allotted work. "Try me," was the answer. The next day this "incorrigibly obstinate idler, while there was no incentive," worked as well as any free man in the gang.

The Montpelier jail was a success from the moment the Sheriff received the pertinent answer, "You would do the same," and the prompt challenge, "Try me." This suggested the plan of organization of the jail as follows: "One dollar a day is set aside from the wages of each for the State, while all in excess of that belongs to the earner. As it works out in figures, every man in ordinary health earns the full laborer's pay of $1.75 a day, of which seventy-five cents is his, the Sheriff acting as his banker and keeping the acumulation until he leaves the prison, when it is given to him in a lump sum."

The financial results of the humane method of treating criminals are thus stated: "The profits accruing to the State have steadily increased. At the end of the first year they were $200; of

the second, $500; of the third, $1,000; after having paid for all clothing, tools and supervision in the form of keeping the books and other clerical work. At the close of the fourth year . . the gross earnings for the State were over $1,800. Since an amount equal to three-fourths of this was retained by the men, their share was more than $1,350. . . . During the whole period their labor earned above $6,000, of which a total exceeding $2,600 was kept by themselves. As a rule the men have carefully saved their money, limiting permitted purchases for themselves to send it home to those dependent on them."

THE writer says that, brilliant as has been the financial success of the new system, this "is but a small part of the good it accomplishes; its real value is to be measured by its effect upon the characters and lives of the prisoners. They leave the jail rugged and healthy from the sane and vigorous existence they have led while there. Their habits have been regular, they have been daily in the open air when work could be had, their food has been substantial, the atmosphere in which they lived salutary."

The Effect on Character

Speaking of his visit to the Montpelier jail the writer says: "I spent the greater part of a day talking with the prisoners, first in company with

the deputy sheriff, and then alone, with full permission to discover opposition to the management if I could. In this way I made the personal acquaintance of the men. Later, on the main street of the city, whom should I meet but five or six of these very prisoners, walking along with smiling faces and a happy air, no more resembling the conventional criminal than did the merchants, workingmen, and lawyers with whom they mingled.

"Here was one of the keys to the mystery. No officer was about, keeping an eye on them; no peculiarity of clothing indicated who they were; they were free to walk off if they pleased, and no one at the jail was worrying about them; and, best of all, the citizens of Montpelier, who knew perfectly well that inmates of the county prison were at all times of the day and evening at large in their midst, were worrying no more about it than were the sheriff and his assistants themselves.

"And yet, four years ago, when the system was first put into operation, a very decided tremor convulsed these very citizens. They were animated by all the righteous dread and abhorrence of the inhabitants of jails common to ordinary mankind. They believed that the men were dangerous, that they would run away, that it was treating them on wrong principles to give them such freedom, and that it was a disgrace

to good people to have criminals going about unguarded on the same streets. But if you suggest these ancient and wholesome ideas to a Montpelier man now, he laughs at you; he is ashamed that four years ago he entertained such superstitions.

"It appears that the Sheriff who inaugurated the new plan of treating prisoners was himself so much in doubt as to its practicability that for a time, when the men did not return promptly to the jail at the appointed time, he became nervous and walked the streets in search of them. But that is all past now, not only because of the unsuspected traits of human nature that experience has unfolded, but because of the marvelous practical success of the system. During the four years, out of eight hundred prisoners treated upon the new plan only two attempted to escape, both of whom were recaptured and sentenced to long terms in the House of Correction for betraying the trust reposed in them. With such a record as this the Sheriff no longer feels perturbed if his entire corps of prisoners is scattered in every direction during the day; and he is perfectly assured that at night they will reappear at the jail."

An instance is given of the trust reposed in the prisoners. The Sheriff purchased tickets to a circus for as many as desired to go, and sent them unattended. Eleven went, others refusing

because they were working for farmers and preferred the money which they were earning. The opportunity to escape was excellent, as the performance continued until after dark; yet every one of them was at the jail fifteen minutes after the tent closed, though some of the men had long-term sentences.

PART FIVE

A NEW INSTITUTION—THE DAWN OF A BETTER DAY

XXIII

A New Institution

XXIII

A New Institution

IT is gratifying to notice the trend of thought and effort of the more advanced students of social science to practically apply the teachings of physiology to the curative treatment of the insane, the idiot and the criminal. We must recognize in the Psychopathic Hospitals, the Schools for the Education of the Feeble-Minded Children, the Training Schools for Girls and Boys, and similar institutions, the beginning of a far more enlightened public policy in the care of these classes.

Enlightened Public Policy

An institution that will more nearly realize the ideal standard of treatment on admission to State care, which physiological and psychological science demands, is the organization at the New York State Reformatory for Women, Bedford Hills, Westchester County, under the title of the Bureau of Social Science.

This Bureau had its origin in a discussion between a Committee on Criminal Courts in New York City, the City Magistrates of that city, and the Managers and officers of the Bedford Reformatory. The Magistrates stated that it was often difficult to determine what to do with specific cases which came before them; the mere appearance of a young woman in court did not furnish sufficient opportunity to form a correct judgment of her mental characteristics; even in cases where the probation officer investigates the facts in the life of individuals, she cannot in the short time allotted her obtain the information necessary to enable the committing magistrate to decide unerringly to what institution each prisoner should be sent. How can this defective system of administering justice be remedied?

What possible reply to the appeal of the Magistrates could be more rational, in the light of our preceding studies, than that of the Managers which was, in substance, "After conviction and before sentence have the entire life-history of the convict—heredity, diseases, education, environment, habits, social relations, mental peculiarities, present health, predisposing and exciting cause of the crime—investigated and then you can determine with scientific precision what course must be pursued to effect her reform." Here, in a single paragraph, the basic principle

of a correct public policy in the treatment of the dependent classes is stated. In medical terms the statement would have been thus, "Make a correct diagnosis of the case before you decide the course of treatment adapted to effect a cure."

The germ in the question put by the Magistrates fell in good ground. The management of the Bedford Reformatory had already instituted a course of investigation of the life-history of some of its inmates by a skilled psychopathist for the purpose of being able to determine more intelligently the course of treatment best adapted in each case to effect reform. In this question came the opportunity of enlarging and perfecting their scheme of reform in their work.

A New Plan Formulated

THE managers formulated a plan that would give effect practically to their ideas, which was submitted to the Committee on Criminal Courts. The Committee gave the plan wide circulation among the magistrates and philanthropic citizens, many of whom approved it but regarded it impracticable as a public measure owing to the expense attending its installation, and its revolutionary character. Fortunately the plan came to the notice of several interested persons able and willing to finance the undertaking, and its success was as-

sured. An organization was formed and incorporated under the above title—The Bureau of Social Science.

The details of the plan of organization finally adopted are worthy of record, for they may be suggestive to those who undertake the establishment of similar institutions. The object sought was to create, in immediate connection with the Bedford Reformatory, a Bureau or Department devoted to the thorough study of every woman convicted of crime and sent to the Reformatory by the magistrates of New York City in order to determine, before she is admitted to the Reformatory, the kind of treatment she should receive to effect her reform. While the Bureau is to be under the jurisdiction and immediate control of the Managers of the Reformatory, it is not located within the grounds of that institution but on a separate tract of land, equipped by buildings, industries and means for occupation and diversion adapted to the application of every test necessary to determine the physical, mental and moral peculiarities of the individual.

The relation of the promoters of the Bureau and the Managers of the Reformatory to the new institution is as follows: "As the Bureau is regarded as an experiment, the expense of which the State would not assume, the promoters undertake to finance this feature of the operations of the Bureau, and the Managers assume only

the expense ordinarily incurred in the care of the same inmates in the Reformatory. Thus the promoters purchase the land, build the buildings, equip the laboratories, and pay the salaries of the Research Staff, while the Managers furnish the ordinary supplies, attendants and workers."

Three Lines of Research

THERE are to be three Departments of investigation, viz., Medical, Physiological and Sociological. Each Department is to be in charge of skilled and experienced experts and to be equipped with every device necessary to obtain accurate results. There will be several trained field workers connected with this staff who will visit the homes and haunts of the convict in search of facts throwing light on her heredity, home and scholastic training, environments, and social affinities.

To this Research Department every convict committed to the Reformatory is first admitted and subjected to such an exhaustive study that there may be no mistake made in determining the kind of care and treatment required to effect her reform. When the diagnosis of her case is satisfactorily made out she is assigned to that Department of the Reformatory adapted to apply the prescribed remedial measures, or, if necessary, she may be committed to another

State institution better equipped for her special treatment. Or, what is of vastly greater importance, the study may bring to light some easily remedied defect in the home-life of the unfortunate victim of circumstances which impelled her to a criminal act. With its removal she can return safely to her home and resume her normal position in the household.

It is apparent that in this plan of operating a Reformatory for Women the curative methods of treatment dictated by physiology, psychology and sociology—the sciences which teach the art of healthy living and correct conduct—will be the dominant forces directing and controlling the care and treatment of the inmates. Every woman admitted will present to the skilled and expert Research staff a new scientific problem, which must be immediately solved, that the sufferer may be returned to her family and to the community at the earliest possible moment. No step will be taken in her treatment until every important feature of her life-history—heredity, diseases, education, habits, social relations, mental peculiarities, and present physical health—have been thoroughly studied and recorded. From this vantage-ground will begin a course of treatment having that exactness in detail and precision in application which accuracy in diagnosis always secures.

It has already been demonstrated by the psy-

copathic hospitals, where the suspected insane are first placed in observation buildings and subjected to expert examination before admission to an asylum, that large numbers are found suffering from temporary ills which do not require for their relief hospital treatment nor custodial care. From a medical view-point there can be no doubt that if the number of Bureaux of Social Science organized like that at Bedford Hills, was so multiplied that every person committed to public care was subjected to an exhaustive examination by experts in physiology, psychology, and sociology, immediately on admission to an institution, and the course of treatment indicated by the results of such investigation were rigidly and intelligently enforced, our asylums, prisons, reformatories, and other charitable and eleemosynary institutions would in no distant future be largely depopulated, and become in a most commendable degree self-supporting. Such a reform would strike at the root of a vast number of our social evils, restore to communities a class of hitherto worthless or dangerous persons, and relieve the State of a source of ever-increasing taxation which is now an intolerable burden.

IT is painfully evident to an intelligent visitor to institutions for the care, treatment, or education of those suffering from idiocy, insanity,

epilepsy, or other affections of the nervous system, that there is too often wanting, on the part of physicians and care-takers alike, that genuine enthusiasm in their work which insures the highest degree of success. The vast variety of symptoms which these diseases present for study attract but little attention, because the brain is a sealed book. All of the inmates are placed on a dead level, and the treatment, instead of being individual, is *en masse*.

Enthusiasm Is Needed

We can only feebly conjecture what vast numbers of feeble-minded would be taught self-care, what an enormous percentage of insane would be cured, and what universal reformation of criminals would result, if every one of these classes now in public care were subjected, individually, to the skilled, patient, and persistent treatment of experts in the physiological and psychological sciences.

As a conclusion we are profoundly impressed with the evidence that the policy of the State in its care of those persons who become a public charge—insane, criminals, idiots, feeble-minded, crippled—should be curative, in the sense of enabling them to live in a community as moral, industrious, and self-supporting citizens. Abundant proof has been given that untold numbers of these life-pensioners upon the taxable resources of the State, if thoroughly treated ac-

cording to the methods—physiological, psychological, and sociological—to be employed by the "Bureau of Social Science," can be rescued from the asylums, prisons, refuges and reformatories of the State. The installation of that Bureau, as an experimental institution designed to apply practically the resources of science, art, and humanity to rescuing young convict women from lives of crime and to demonstrate thereby the power of the same method to cure the dependent classes of their innumerable crippling ailments, is the dawn of a new era in the history of Christian civilization. For this important advance in practical philanthropy too much credit cannot be given to Mr. John D. Rockefeller, Jr., and his associates, who agreed to finance the undertaking, and to the Managers of the Bedford Reformatory, who through the good offices of the Superintendent, Dr. Katherine B. Davis, one of the most advanced students of sociology, furnished the detailed scheme of research and general administration.

We must add that in this action of the Bedford Reformatory we recognize the inspiration of the spirit of aggressive reform, the indomitable will in combating social evils, the untiring zeal in efforts to uplift the fallen, which characterized the long and eventful life of its illustrious founder, Abby Hopper Gibbons. At the age of ninety-two she visited the Committee of the Legislature which had the bill creating

the Reformatory under discussion and the substance of her remarks was as follows: "A Reformatory pure and simple is my aim. The word *Prison* may keep in the background. Criminals are made what they are by association and treatment. Let us turn over a new leaf and remember that they are human; and that, with tact and experience, it is possible to 'temper the wind to the shorn lamb' and soften the heart of the hardest."

XXIV

Eugenics

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Eugenics

EUGENICS opens a field in altruism of infinite possibilities in the prevention of public dependency. Galton says: "Its first object is to check the birth rate of the unfit, instead of allowing them to come into being, though doomed in large numbers to perish prematurely; the second object is the improvement of the race by furthering the productivity of the fit by early marriages and healthful rearing of their children." It aims "to replace natural selection by other processes that are more merciful and not less effective. Natural selection rests upon excessive production and wholesale destruction; eugenics on bringing no more individuals into the world than can be properly cared for and those only of the best stock."

Objects of Eugenics

But Eugenics is in its experimental stage. Its method of preventing the increase of the unfit,

by sterilizing or unsexing those who might beget them, would certainly effect its object if rigorously enforced by the State. But the procedure is naturally shocking to the moral sense, and must be attended with serious difficulties. It is a matter of common observation that idiots and feeble-minded are sometimes found in the homes of the more intelligent members of a community and the best scholars in the public schools often come from the homes of the illiterate, who are popularly classed as feeble-minded. As idiocy and feeble-mindedness have not been standardized, by what rule is the public officer appointed to sterilize the sexes to determine with absolute certainty that the subjects of his operations would beget idiots or feeble-minded? Again, what would be the effect on the morals of a community in which lived unsexed feeble-minded?

So far as the method has been practiced under rules and regulations established by the State, the reported results are not conclusive as to the propriety of its general adoption and rigid enforcement. It is certain that whenever the method is legalized it should be protected with such safeguards as will effectually prevent abuses.

It may well be questioned, whether the more rational methods of improving the race should not now be in accord with the second object of

Eugenics, as stated by Galton, viz., "by furthering the productivity of the fit by early marriages and healthy rearing of children." To this should be added restriction of marriage of the unfit, segregation of the sexes most exposed and unprotected, and such education as will enable them to practice self-care and self-support.

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